CONCEPTIONS OF LANGUAGE: EGYPTIAN PERSPECTIVES ON WRITING AND GRAMMAR IN THE LATE PERIOD AND GRECO-ROMAN PERIOD

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ABSTRACT

This dissertation examines the Egyptians' consciousness of their own language and scripts as a structured system and its influence on the scribal culture from 700 BCE to 300 CE. During this period, while Greek and Demotic, and their attendant scripts, developed into the everyday languages, scribes still employed archaic Middle Egyptian and the classical hieratic and hieroglyphic scripts to varying degrees within in a priestly environment. Through an investigation of technical texts and their larger scribal and cultural context, I contend that Egyptian scribes were aware of their own language and scripts as a structured system and exploited that knowledge in contemporaneously produced texts.

In the first part, I examine the grammatical and alphabetic texts in demotic. Based on their development and internal organization, they reveal an awareness of syntactic and phonetic units. Moreover, by contextualizing their role in the larger process of scribal education, I show that forerunners of these exercises can be seen in New Kingdom scribal education and that they do not in fact reflect Greek influence, as some scholars have suggested. In the second part, I analyze onomastica and sign lists and their role in the elite scribal activities of the House of Life. These lists transmit not just a list of things, but also information regarding orthography, lexical nuances and parallels, and phonetic value. Both this information and the actual content of the list, I claim, constituted priestly knowledge. There was also a practical aspect to these lists, in that they provided raw material for the creation and adaptation of texts.

Thus, by breaking the language and writing system down into the basic units of words and signs, organizing those units in structured lists, and providing explanations for

entries, scribes had the resources to interact effectively with both the everyday demotic language and archaic texts in Middle Egyptian and the classical hieroglyphic and hieratic scripts. Moreover, elite temple scribes, I argue, were actively engaged in mastering and transmitting the complex relationship between visual and auditory meaning across script and language stage in order to include wordplay in contemporaneous produced demotic, hieratic, and hieroglyphic texts.

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ABBREVIATIONS

ÄAT	Ägypten und Altes Testament
AEO	*Ancient Egyptian Onomastica*
ASAE	*Annales du Service des Antiquités de l'Égypte*
BACE	*Bulletin of the Australian Centre of Egyptology*
BdÉ	*Bibliothèque d'Étude*
BIFAO	*Bulletin de l'Institut Français d'Archéologie Orientale*
CDD	*Chicago Demotic Dictionary*
CdE	*Chronique d'Égypte*
CNIP	Carsten Niebuhr Institute of Near Eastern Studies, Publications
Glossar	Erichsen, *Demotisches Glossar*
GM	*Göttinger Miszellen*
IFAO	Institut français d'archéologie orientale
JARCE	*Journal of the American Research Center in Egypt*
JEA	*Journal of Egyptian Archaeology*
JNES	*Journal of Near Eastern Studies*
LÄ	*Lexikon der Ägyptologie.* Helck, Otto, and Westendorf, 7 volumes
LingAeg	*Lingua Aegyptia*
MDAIK	*Mitteilungen des deutschen archäologischen Instituts Abteilung Kairo*
OBO	Orbis Biblicus et Orientalis
OIMP	Oriental Institute Museum Publications
OIP	Oriental Institute Publications
OLA	Orientalia Lovaniensia Analecta
Ptolemaic Lexikon	*A Ptolemaic Lexikon: a lexicographical study of the texts in the Temple of Edfu.* Penelope Wilson. Leuven: Peeters, 1997.
RdÉ	*Revue d'Égyptologie*
SAK	*Studien zur Altägyptischen Kultur*
SAOC	Studies in Ancient Oriental Civilization
TM	Trismegistos (http://www.trismegistos.org/)
Wb.	*Wörterbuch der ägyptischen Sprache.* Adolf Erman and Hermann Grapow. Seven volumes (and five volumes *Belegstellen*). Leipzig: J.C. Hinrichs; Berlin: Akademie Verlag, 1971.
UPZ	*Urkunden der Ptolemäerzeit (ältere Funde),* ed. U. Wilcken
ZÄS	*Zeitschrift für ägyptische sprache und altertumskunde*

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CHAPTER 1. INTRODUCTION

The Egyptian language survived for thousands of years, from the earliest instances of writing in the 4th millennium BCE to last documents composed in Coptic at the beginning of the 19th century CE.[1] Over the course of these millennia numerous changes, both minor and major, occurred in grammar, lexicography and script. But the written forms of Egyptian, as is true for many languages, were quite conservative and the cultural currency that an aged pedigree granted a text quite powerful, so archaic models were maintained even as new scripts and language stages developed and as fewer and fewer scribes mastered the old ones. By the Greco-Roman period (332 BCE-395 CE), after several millennia of written tradition had been accrued, Middle Kingdom (2055-1650 BCE) and even occasionally Old Kingdom (2686-2160 BCE) texts were still copied, adapted and in some cases translated into a later stage of the language. Hieroglyphs were not only still used for temple inscriptions and certain other religious texts, but the system of signs was creatively expanded; similarly a robust tradition of hieratic funerary and temple texts was maintained by the temple scriptorium. Around the time of the Greco-Roman period, texts devoted to the idea of language and writing, such

[1] The earliest writing dates between to either the Naqada II or Naqada III period; for the former dating, see Günter Dreyer, *Umm el-Qaab I: das prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse*, Deutsches Archäologisches Institut, Abteilung Kairo, Archäologische Veröffentlichungen 86 (Mainz: Verlag Philipp von Zabern, 1998).; for the latter, see Jochem Kahl, "Die frühen Schriftzeugnisse aus dem Grab U-j in Umm el-Qaab," *CdE* 78 (2003): 112–35; John Baines, "The earliest Egyptian writing: development, context, purpose," in *The First Writing: Script Invention as History and Process*, ed. Stephen D. Houston (Cambridge: Cambridge University Press, 2004), 154. Layton cites the last documents written in Coptic as dating to the beginning of the 19th century, Bentley Layton, *A Coptic Grammar*, Porta Linguarum Orientalium 20 (Wiesbaden: Harrassowitz, 2000), 1.; from c. 1800, a letter in Bohairic, W.E. Crum, *Catalogue of the Coptic Manuscripts in the Collection of the John Rylands Library Manchester* (Manchester: University Press, 1909), 231–33. Bohairic Coptic also survives to a certain extent as a liturgical language in the Coptic Orthodox Church, Layton, *A Coptic Grammar*, 1.

as onomastica with archaic vocabulary and lists of hieroglyphic signs with explanations of their meaning and phonetic value, began to appear in the written record. These texts, in combination with the development of grammatical exercises and alphabetically organized lists, reveal that the Egyptians pursued their own language and writing system as an intellectual endeavor.

The scholarly pursuits of the ancient Egyptians have long held a fascination for students of Egyptian culture, from the Greek historiographers to modern Egyptologists. The objects of the Egyptian pursuit of knowledge do not, however, always easily map onto modern scientific fields of inquiry. This holds true for the language interests of ancient Egyptian scholars, whose emphasis on their script system and lack of technical terminology make it difficult to align with modern linguistic research. Thus rather than evaluate the material according to modern language distinctions and interests, I have let the features prominent in the preserved material guide the emphases of this study.

The cultural context of the production of knowledge and what place Egyptian scholars held in society are of far greater interest here than a hunt for forerunners of modern ideas. I understand Egyptian knowledge of language and writing as inherently linked to the social role of language and writing and to a constellation of other scribal and priestly activities. Thus there are two main goals for this dissertation:

1. To identify and examine the methods used by the Egyptians to organize and categorize their own language
2. To evaluate how these activities both shaped and were shaped by contemporaneous scribal activities

To this end, I examine texts dating from a 1000 year period, from the seventh century BCE to the third century CE. Certain types of texts and techniques of organization are characteristic of this period and speak to the goals of this investigation. At the heart of this dissertation are the organizational strategies for knowledge related to language and writing employed by the Egyptians throughout this period. Four key strategies—grammatical organization, alphabetical order, semantic relations in onomastica, and sign lists—form the core of this analysis. These strategies in turn are conditioned by and function in a specific social and linguistic milieu. Two key institutions—the scribal school and the House of Life—provide contextualization for the development and use of these strategies. By analyzing these strategies and their social contexts, I claim that Egyptian scholars were conscious of their own language and scripts as a structured system and exploited that knowledge in contemporaneously produced texts.

1.1 Intellectual history

What did ancient people know and how did they know it? These two basic questions have long been at the heart of the history of science and intellectual history more broadly. With the discovery of texts relating to medicine, mathematics, and astronomy in Egypt and Mesopotamia, modern scholars of the late 19th and early-mid 20th century brought to light the work of their ancient counterparts. Such early work naturally focused on translation and understanding the basic concepts, often ascribing modern terminology to the ancient texts. But much of the earlier work ignored or discounted types of knowledge that did not correspond to modern scientific fields, e.g. divination, or that defied modern perceptions of what is "real" or "true," e.g. medical spells. The history

of science and intellectual history has undergone a major shift in recent decades towards a more inclusive idea of science and knowledge and towards a more contextualized approach, a shift that has subsequently been adopted by scholars of the ancient Near East too.[2] This study has not only been informed by the approaches and methodology current in Egyptology, but also in neighboring disciplines, particularly Assyriology.

This contextualized approach has been broadly adopted across several fields, particularly mathematics and astronomy. In particular, Eleanor Robson has investigated the social context of mathematics in Mesopotamia.[3] For Egypt, the most extensive work on the contextualization of intellectual ideas has been done by Annette Imhausen.[4] Her work on mathematics deliberately avoids approaching the Egyptian sources from the modern mathematical point of view, including the problematic practice of expressing the content in modern mathematical terms.[5] Similarly Francesca Rochberg has studied the intertwined fields of divination, astrology, and astronomy in Mesopotamia, arguing that ancient scribes perceived what we consider three separate fields as belonging to the same art of celestial inquiry.[6]

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[2] For example, Høyrup differentiated three historiographic stages in the study of Mesopotamian mathematics: the initial decipherment and publication (the heroic age), the addition of more material to the corpus and analysis of the texts in modern mathematical terms (triumph of translations), and the reanalysis of the texts in their historical and social context (new approaches). Jens Høyrup, "Changing Trends in the Historiography of Mesopotamian Mathematics: An Insider's View," *History of Science* 34 (1996): 1–32.
[3] Eleanor Robson, *Mathematics in ancient Iraq: a social history* (Princeton: Princeton University Press, 2008).
[4] Annette Imhausen, *Mathematics in Ancient Egypt: A Contextual History* (Princeton and Oxford: Princeton University Press, 2016).
[5] "To assess [Egyptian mathematics] as 'primitive' is historically misleading and based on a comparison with modern mathematics more than 2000 years later. If there is little to link the two, it points to the inadequacy of describing this ancient mathematical culture in terms of modern categories like algebra, trigonometry, and so on." Annette Imhausen, "Traditions and myths in the historiography of Egyptian mathematics," in *The Oxford Handbook of the History of Mathematics*, ed. Eleanor Robson and Jacqueline Stedall (Oxford: Oxford University Press, 2009), 798.
[6] Francesca Rochberg, *The heavenly writing: divination, horoscopy, and astronomy in Mesopotamian culture* (Cambridge: Cambridge University Press, 2004); Francesca Rochberg, "The History of Science and Ancient Mesopotamia," *Journal of Ancient Near Eastern History* 1, no. 1 (2014): 37–60.

The Egyptian approach to religion in recent years has also been treated as a scholarly and intellectual endeavor. Alexandra von Lieven coined the term "religious astronomy" (religiöse Astronomie) to describe the nature of Egyptian celestial knowledge for which rigorous observation is inextricably combined with mythical explanations.[7] Joachim Quack too has analyzed the process of divination and argued that it constituted a form of science due its rigorously applied methodology which resulted in specific knowledge regarding outcomes of various situations.[8] Christian Leitz as well has noted the meticulous organization of information relating to the cult that is recorded in temple inscriptions, and has suggested viewing such inscriptions, particularly those of the soubassement that relate to cult topography, as encyclopedias.[9]

In terms of language and writing as a scholarly pursuit, more work has been done on the Mesopotamian front, no doubt due to the far better preserved evidence attesting to this phenomenon. With texts numbering in the hundreds and thousands, from lexical lists organized according to a variety of principles to the bilingual Sumerian-Akkadian grammatical texts, most text types span nearly the entire length of cuneiform tradition. The cuneiform grammatical tablets, much more extensive than the Egyptian evidence and

[7] In particular too, the sources for such knowledge are often religious in nature: temple inscriptions, texts on coffins, and other funerary texts. Alexandra von Lieven, *Der Himmel über Esna: Eine Fallstudie zur Religiösen Astronomie in Ägypten am Beispiel der kosmologischen Decken- und Architravinschriften im Tempel von Esna*, Ägyptologische Abhandlungen 64 (Wiesbaden: Harrassowitz, 2000), 186–90.
[8] Quack suggests a working definition of scientific texts as compositions which were systematically composed by an intellectual elite and which used verified methods to gain knowledge or achieve outcomes in a significant way. Joachim Friedrich Quack, "Präzision in der Prognose oder: Divination als Wissenschaft," in *Writings of Early Scholars in the Ancient Near East, Egypt, Rome, and Greece: Translating Ancient Scientific Texts*, ed. Annette Imhausen and Tanja Pommerening, Beiträge zur Altertumskunde 286 (Berlin and New York: De Gruyter, 2010), 69–91."
[9] Christian Leitz, "Altägyptische Enzyklopädien," in *Altägyptische Enzyklopädien. Die Soubassements in den Tempeln der griechisch-römischen Zeit: Soubassementstudien I*, ed. Alexa Rickert and Bettina Ventker, vol. 2, Studien zur spätägyptischen Religion 7 (Wiesbaden: Harrassowitz, 2014), 1017–45.

far better attested, have been analyzed by Jeremy Black.[10] He emphasizes how the organization governing the text is key to understanding them, as it is their sequence which gives them meaning. The lexical tablets more generally have been the subject of a number of new studies recently. In order to examine the history of lexical tablets across all periods, Nick Veldhuis in a recent book focused on incorporating archaeological information and information from colophons to study who created and used the tablets and in what context they used them.[11] He argues that lexical lists represent the preservation and transmission of knowledge and that to study them, knowledge must be recognized as "a social phenomenon, as something that people use to pursue their material, social, and cultural goals, embedded in a historical context."[12] The extensive tradition of textual commentaries from the first millennium BCE also draws heavily from the philological information contained in lexical lists and forms its own scholarly field.[13] These studies of the Mesopotamian tradition, which at once has both many similarities with the Egyptian tradition and also profound differences, provide a comparison, and occasionally a foil, for this work.

1.2 Previous Work

The texts considered here—grammatical texts, wordlists, and onomastica—have long been somewhat neglected in the scholarly record. This can surely be attributed, at least in part, to the fact that many of the texts were written in Demotic and to their post-

[10] Jeremy Black, *Sumerian grammar in Babylonian theory*, Studia Pohl: Series Major 12 (Rome: Biblical Institute Press, 1984). More recently see, Peter J. Huber, "On the Old Babylonian Understanding of Grammar: A Reexamination of OBGT VI-X," *Journal of Cuneiform Studies* 59 (2007): 1–17; Niek Veldhuis, "Grammatical texts in their intellectual contexts," *Acta Sumerologica* 22 (2005): 227–47.
[11] Niek Veldhuis, *History of the Cuneiform Lexical Tradition*, Guides to the Mesopotamian Textual Record 6 (Münster: Ugarit-Verlag, 2014).
[12] Ibid., 6.
[13] Eckart Frahm, *Babylonian and Assyrian text commentaries: origins of interpretation*, Guides to the Mesopotamian Textual Record 5 (Münster: Ugarit-Verlag, 2011).

Pharaonic date, areas that have traditionally been underrepresented in scholarship for many years. Early scholars often saw such texts as insufficiently complex. The earliest texts were published at the end of the 19th century. In 1889, Griffith completed the initial, and until now only, publication of the Tanis Sign papyrus and his assessment may explain why the text is little discussed even today,

> "It is at once highly interesting and very disappointing. It is of the highest interest as being the only document bearing upon the system by which the Egyptians arranged and taught their huge syllabary. It is disappointing, because we find so little system in it. We should have expected a more logical arrangement of the signs, and more method in naming them; more indication of a fixed order in the alphabetical…From the considerable care with which the list has been prepared, and from its extent, we must suppose that if any rigid method was customary it would have been adopted here; and we are driven to conclude that the Egyptians possessed no such system."[14]

Griffith's dissatisfaction with the text, particularly the lack of "logic," is a sentiment that has long tacitly been shared by many scholars. Similar disparaging remarks characterize Alan Gardiner's seminal publication of Egyptian onomastica, which only focused on Middle Kingdom and New Kingdom exemplars, but is nonetheless still the major publication on the subject. Gardiner asserts:

> "Lexicography was not Amenope's aim, at all events not his primary aim. Early thought was little interested in words. On the other hand it was intensely interested in things, and the classification and hierarchical arrangement of these may well have seemed a worthy ambition. Hence we have these three lists of entities, very crude attempts to cope with the endless variety of the world, but none the less first steps in the direction of an Encyclopaedia."[15]

The grammatical exercises fared slightly better in scholarly opinion. O. Hess, a demotic grammatical exercise with agent nouns, was initially published by Brugsch in 1878 and

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[14] F. Ll. Griffith and William Flinders Petrie, *Two hieroglyphic papyri from Tanis*, Memoir of the Egypt Exploration Fund 9 (London: Trübner & Co., 1889), 1. A small section of the papyrus with alphabetical organization has been the subject of a number of articles, but the papyrus as whole is little discussed, see Chapter 2.

[15] Alan Gardiner, *Ancient Egyptian Onomastica* (Oxford: Oxford University Press, 1947), 1.

republished by Hess in 1897, but attracted little attention.[16] However, a handful of publications from the first half of the 20th century began to associate the grammatical texts with schooling,[17] and sparked occasional interest, leading Brunner to include a discussion of such late material in his study of Egyptian schooling.[18]

As more and more demotic texts began to be published and material from the Greco Roman period considered in more detail, several new studies regarding the schooling and scribal activity emerged. Kaplony Heckel's 1974 article on the education system in the Late Period summarized the previously published evidence and added some new grammatical exercises.[19] She was followed by Didier Devauchelle who wrote another important article that included several more new texts.[20] The publication by Smith and Tait of the Saqqara alphabetic text on birds (P. Saqqara 27) resulted in a string of articles concerning the use of the alphabet in demotic.[21] Perhaps most significantly, the extensive Roman period hieratic onomasticon with demotic and Old Coptic glosses from Tebtunis was published by Osing.[22] Around the same time, several large cultic manuals,

[16] Heinrich Brugsch, "Demotische Paradigmata," *ZÄS* 16 (1878): 1; Jean Jacques Hess, "Demotica," *ZÄS* 35 (1897): 144–49.
[17] Nathaniel Reich, "A Grammatical Exercise of an Egyptian Schoolboy," *JEA* 10 (1924): 285–88; Wilhelm Spiegelberg, *Demotica I*, Sitzungsberichte der Bayerischen Akademie der Wissenschaften, Philosophisch-Philologische und Historische Klasse, Abh. 6 (München: Bayerische Akademie der Wissenschaften, 1925), 18–22; W. Erichsen, *Eine ägyptische Schulübung in demotischer Schrift*, Det Kongelike Danske Videnskabernes Selskab. Historisk-filologiske Meddelelser 31, 4 (Copenhagen: I Kommission hos E. Munksgaard, 1948).
[18] Hellmut Brunner, *Altägyptische Erziehung* (Wiesbaden: Otto Harrassowitz, 1957).
[19] Ursula Kaplony-Heckel, "Schüler und Schulwesen in der agyptischen Spätzeit," *SAK* 1 (1974): 227–46.
[20] Didier Devauchelle, "Remarques sur les méthodes d'enseignement du démotique (À propos d'ostraca du Centre Franco-Égyptien d'Étude des Temples de Karnak)," in *Grammata Demotika: Festschrift für Erich Lüddeckens zum 15. Juni 1983*, ed. Heinz Josef Thissen and Karl-Th. Zauzich (Würzburg: Gisela Zauzich Verlag, 1984), 47–59.
[21] H. S. Smith and W. J. Tait, *Saqqâra demotic papyri*, Texts from Excavations 7 (London: Egypt Exploration Society, 1983), 198–213. For more detail, see Chapter 2.
[22] Jürgen Osing, *The Carlsberg Papyri 2: Hieratische Papyri aus Tebtunis 1*, CNI Publications 17 (Copenhagen: Museum Tusculanum Press, 1998).

such as the Book of the Fayum,[23] the Book of Thoth,[24] and the Book of the Temple,[25] were published or identified. These texts clearly illustrate that elite priestly scribes were engaged in activities that were scholarly in nature and reveal that critical attention to language choice and written form was of the utmost importance for those scribes. Without these valuable studies on the intellectual climate of the Greco-Roman period, this study would not be possible.

Apart from the studies and text editions mentioned above, three brief, but key studies on Egyptian "linguistics" have provided a foundation for this work. The first of these, Janet Johnson's "Ancient Egyptian Linguistics," a contribution to a multi-volume work on the history of linguistics across the world from ancient times until the present, established that the bulk of the evidence derives from the Greco-Roman period and is often connected to a school environment.[26] I follow Johnson in focusing on the late evidence and significantly expand on the number and types of texts which she discusses.

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[23] Horst Beinlich, *Das Buch vom Fayum*, Ägyptologische Abhandlungen 51 (Wiesbaden: Harrassowitz, 1991); Horst Beinlich, *Der Mythos in seiner Landschaft: das ägyptische "Buch vom Fayum." 1, Die hieroglyphischen Texte*, Studien zu den Ritualszenen altägyptischer Tempel 11 (Dettelbach: Röll, 2013); Horst Beinlich, *Der Mythos in seiner Landschaft: das ägyptische "Buch vom Fayum". 2, Die hieratischen Texte*, Studien zu den Ritualszenen altägyptischer Tempel, 11,2 (Dettelbach: Röll, 2014); Horst Beinlich, with the assistance of Richard Jasnow, *Der Mythos in seiner Landschaft: das ägyptische "Buch vom Fayum". 3, Die hieratisch-demotischen Texte.* Unter Mitarbeit von Richard Jasnow, Studien zu den Ritualszenen altägyptischer Tempel, 11,3 (Dettelbach: Röll, forthcoming).

[24]Richard Jasnow and Karl-Theodor Zauzich, *The Ancient Egyptian Book of Thoth: a demotic discourse on knowledge and pendant to the classical hermetica* (Wiesbaden: Harrassowitz, 2005); Richard Jasnow and Karl-Theodor Zauzich, *Conversations in the House of Life: a new translation of the Ancient Egyptian Book of Thoth* (Wiesbaden: Harrassowitz, 2014).

[25] See e.g., Joachim Friedrich Quack, "Die Überlieferungsstruktur des Buches vom Tempel," in *Tebtynis und Soknopaiu Nesos: Leben im römerzeitlichen Fajum. Akten des Internationalen Symposions vom 11. bis 13. Dezember 2003 in Sommerhausen bei Würzburg*, ed. Sandra Lippert and Maren Schentuleit (Wiesbaden: Harrassowitz, 2005), 105–15; Joachim Friedrich Quack, "Organiser le culte idéal: le Manuel du temple," *Bulletin de la Société Française d'Égyptologie* 160 (2004): 9–25; Joachim Friedrich Quack, "Das Buch vom Tempel und verwandte Texte: ein Vorbericht," *Archiv für Religionsgeschichte* 2 (2000): 1–20.

[26] Janet H. Johnson, "Ancient Egyptian Linguistics," in *History of Linguistics. Volume I: The Eastern Traditions of Linguistics*, ed. Giulio Lepschy (London: Longman, 1994), 63–76. The article was originally published in Italian as, Janet H. Johnson, "L'Egiziano," in *Storia della linguistica I*, ed. Giulio Lepschy (Bologna: Società editrice il Mulino, 1990), 86–96.

I also consider the texts within in their specific background and what role they played in scribes education and daily life.

Another brief look at various aspects of Egyptian interest in language is Joris Borghouts' short article "Indigenous Egyptian Grammar" in another multi-volume reference work on the history of linguistics.[27] Borghouts not only addressed schooling and grammatical texts, but also considered the terminology used by the Egyptians and their understanding and attitudes toward other languages. I pick up on this issue of terminology and perceptions of other languages in my discussion of the meta-awareness of language (see Epilogue).

Finally, the most recent is the UCLA Encyclopedia of Egyptology article by Sami Uljas in which he analyzes "linguistic consciousness," defined as both "consciousness of language as a medium of communication whose form and use are conditioned by the social and spatio-temporal context" and as "awareness of language as an abstract entity that constitutes and can be treated as a system."[28] He notes that the former aspect was far better attested throughout Egyptian history, particularly in the Pharaonic period. However, he does give a brief overview of the latter aspect covering a broader period than the previous two articles; he lists not only the grammatical exercises in demotic, but also the Coptic material from the Christian Period, Greek grammatical discussion starting from the Roman Period, and Coptic-Arabic grammars following the Islamic conquest. Additionally, he asserts that alphabetically organized documents and onomastic texts can

[27] Joris F. Borghouts, "Indigenous Egyptian Grammar," in *History of the Language Sciences: An international handbook on the evolution of the study of language from the beginnings to the present*, ed. Sylvain Auroux et al., Handbücher zur Sprach- und Kommunikationswissenschaft 18 (Berlin: Walter de Gruyter, 2000), 5–14.

[28] Sami Uljas, "Linguistic Consciousness," ed. Julie Stauder-Porchet, Andreas Stauder, and Willeke Wendrich, *UCLA Encyclopedia of Egyptology* (Los Angeles, 2013), 1, http://digital2.library.ucla.edu/viewItem.do?ark=21198/zz002dn8xd.

be seen as part of this latter aspect. I follow Uljas in his use of the term "linguistic consciousness" and in his distinction between these two interrelated types of consciousness, although I focus largely on the latter aspect. As the former aspect inevitably influences the social context in which the latter functions, both nonetheless play a role in my study.

Ultimately my research is an investigation into the intellectual history of Egypt in terms of 1) knowledge about the language and writing system and 2) the production and use of that knowledge. Yet I have deliberately avoided casting the following analysis in modern terms, such as a history of "linguistics" or ancient Egyptian "linguistics," because of the difficulties in relating the complex idea of modern scientific linguistics with the equally complex role of knowledge about language in ancient Egypt. I also do not attempt in any systematic way to link the Egyptian pursuits with modern areas of linguistics such as phonology or etymology because of the temptation to anachronistically and teleologically read the present into the past. A search for the germs of modern linguistic thought within ancient Egyptian sources implicitly has the aim of explaining how *modern* linguistic science arose, not what *ancient* preoccupations were. Instead, I investigate the Egyptians own attitudes toward language, remaining focused on topics that are emphasized within the ancient sources and on the culturally embedded nature of knowledge about and the use of language and writing.

1.3 Writing as a field of knowledge

For the Egyptians, the writing occupied a privileged cultural position. While only a tiny fraction of the population was literate,[29] the society was a literate society in the

[29] John Baines and Christopher Eyre, "Four notes on literacy," *GM* 61 (1983): 65–96; John Baines, "Literacy and ancient Egyptian society," *Man NS* 18 (1983): 572–99.

sense that written texts were a core element in everyday administration and that literacy had significant cultural currency. The Egyptians themselves were deeply concerned with what was written down and where. Spoken language had power in the sense that by "performing" speech, i.e. reciting spells, a person could affect a situation or achieve a goal, such as successfully traversing the underworld. But written language also possessed power of its own and the physical presence of a text on a temple wall or in a tomb could ensure that its contents were perpetually enacted and effective.[30] Given the Egyptian's own emphasis on the written form both as it related to a potential spoken realization, but also independent from it, this study considers writing as a legitimate and distinct field of knowledge for the Egyptians.

Writing as a distinct field of knowledge, while paralleled in many ways in Mesopotamian texts,[31] does not fit easily within the modern paradigm of linguistics or even philology. Instead, we all too often see writing as the mere representation of speech, while ceding spoken language scientific and philosophical primacy. The origins of this opposition can be traced back to Greek thought from the fifth century BCE. The Platonic anxieties over writing[32]— the potential for forgetfulness and its ability to grant the mere appearance of wisdom (*Phaedrus* 275a-b)[33]—are voiced in *Phaedrus* by Socrates, who

[30] For the effectiveness of funerary texts in such a manner, see e.g. Mark Smith, *Traversing Eternity: Texts for the Afterlife from Ptolemaic and Roman Egypt* (Oxford: Oxford University Press, 2009), 11–12.
[31] The similarities in Egyptian and Mesopotamian approaches to language lie not so much in their respective ideographic origins (as cuneiform signs quickly became visually divorced from their original pictographic value, while hieroglyphs maintained their iconic form for the entirety of the script's history), but in the polyvalent nature of signs and the development of a distinct scribal class with its own norms and values. Veldhuis, *History of the Cuneiform Lexical Tradition*; Frahm, *Text commentaries*.
[32] See Phironze Vasunia, *The Gift of the Nile: Hellenizing Egypt from Aeschylus to Alexander* (Berkeley: University of California Press, 2001), 142–82. Vasunia deftly lays out how the Phaedrus dialogue expresses Greek, or at least Platonic, social anxieties regarding language. Even when Socrates describes Egyptian language, the critique is based in Greek cultural norms, not as a true representation of contemporaneous Egyptian views.
[33] This is not to say that Plato through the speech of Socrates completely rejects writing in Phaedrus, or that scholars all agree on Plato's views as concerns writing. This passage has been read literally and ironically.

states that "written words" are simply a "reminder" of true knowledge (275d). Aristotle continues in this vein with his assertion that "words spoken are symbols of affections or impressions of the soul; written words are symbols of words spoken," which can be seen as the direct forerunner to Saussure's axiomatic proclamation that "language and writing are two distinct systems of signs; the second exists for the sole purpose of representing the first."[34] Thus as Derrida put it, writing is "the anathema that the Western world has obstinately mulled over, the exclusion by which it has constituted and recognized itself, from the *Phaedrus* to the *Course in General Linguistics.*"[35] In modern linguistics, the preference for speech does not necessarily derive from its closeness to philosophical truths, but rather it derives from the perception that the spoken idiom lies closest to the universal system inherent in human cognition.[36] Writing in contrast is an abstraction, a mediated and consciously altered form of that system. Simply put, speech constitutes a more reliable body of evidence for many of the questions that modern linguists ask.

There is however a paradoxical element to the tension between speech and writing and the protestations of the former's primacy, an element which lies at the heart of Derrida's critique. There exists, from Plato through today, an ingrained bias towards understanding language through the lens of written forms. Per Linell explicated this precise issue in the aptly titled *The Written Language Bias in Linguistics,* contending that

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For a variety of scholarly interpretations regarding this point, see G. R. F. Ferrari, *Listening to the cicadas: a study of Plato's Phaedrus* (Cambridge: Cambridge University Press, 1987), 206–22. Vasunia states, "the Phaedrus is replete with various ironies that tend to undermine a straightforward criticism of writing." Vasunia, *The Gift of the Nile: Hellenizing Egypt from Aeschylus to Alexander*, 150.

[34] Aristotle, *Categories. On Interpretation. Prior Analytics*, trans. H.P. Cooke and Hugh Tredennick, Loeb Classical Library 325 (Cambridge: Harvard University Press, 1938), 115. Ferdinand de Saussure, *Course in General Linguistics,* trans. Wade Baskin (New York: The Philosophical Library, 1992), 23.

[35] Jacques Derrida, *Of grammatology*, trans. Gayatri Chakravorty Spivak (Baltimore: The John Hopkins University Press, 1976), 103.

[36] Florian Coulmas, *Writing Systems: An introduction to their linguistic analysis* (Cambridge: Cambridge University Press, 2003), 10–17.

"modern linguistic theory…approaches the structure and mechanism of spoken language with a conceptual apparatus, which—upon closer scrutiny—turns out to be more apt for written language."[37] Even subfields, such as phonology, that work nearly exclusively with spoken language, can work on assumptions originating in written language.[38]

Turning back to Egypt, writing too has a paradoxical place, at once over-privileged in some respects, but also an essential topic of study in others. The predisposition of early Egyptology to concentrate on texts and textual evidence to the detriment of archaeological and art historical evidence is undeniable. The very inception of modern Egyptology is traditionally pinned to the decipherment of hieroglyphs by Champollion. Even today, there is still a tendency to privilege the content of a text over its material aspects.

But on the other hand, the specific written forms of Egyptian deserve critical attention in this study and more generally for two reasons. First, unlike say a scenario in which there is one alphabetic script in use in a given region, Egyptian scribes confronted an extensive variety of scriptural choices. These decisions were not only concerned with macro level script choices, but were also question of if and to what extent a scribe should exploit the multivalent possibilities inherent in each script. For all three native Egyptian scripts—hieroglyphs, hieratic, and demotic—the flexible orthography and three different types of signs (phonetic, ideographic, and determinative) allowed for a range of possible

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[37] Per Linell, *The Written Language Bias in Linguistics* (Linköping: Linköping University, 1982), 1. See also, Roy Harris, *The Origin of Writing* (London: Duckworth, 1986) and his subsequent publications. Additionally, David Olson, *The World on Paper* (Cambridge: Cambridge University Press, 1994); and Florian Coulmas, *The Blackwell Encyclopedia of Writing Systems* (Oxford: Blackwell, 1996).

[38] Faber argues that phonological segmentation is dependent on alphabetic, Alice Faber, "Phonemic segmentation as epiphenomenon: evidence from the history of alphabetic writing," in *The Linguistics of Literacy,* ed. P. Downing, S.D. Lima and M. Noonan (Amsterdam: John Benjamins, 1992), 111-34. See also Mark Aronoff, "Segmentalism in linguistics. The alphabetic basis of phonological theory," in *The Linguistics of Literacy,* 71-82;

outcomes. Words could favor ideographic or phonetic spellings and the determinatives—be there one or more--could be more or less specific. Thus just as a spoken language can contain extralinguistic information (i.e. emotion, tone, or even accents that point to cultural information like social class or education), so too do even simply composed Egyptian contain extralinguistic information, primarily through the use of determinatives. Moreover, the iconic nature of hieroglyphs and the visual connections between graphic elements and larger artistic scenes[39] reveal a visual emphasis to use of writing. As such graphic information is not included in a spoken realization, writing forms a linked, but distinct medium of communication. The reality of these choices and the inventive written forms of the period—most famously, of course, are the temple inscriptions—clearly indicate that ideas about written forms of language were an essential part of the scribal occupation.

The second reason writing must be given serious consideration is that only the written, not oral communication is accessible to us as modern scholars. All linguistic evidence has been filtered through the lens of writing and the fact that it is written is essential to understanding it. Writing is a physical and material endeavor and by considering writing, I also consider the texts as material evidence. The abstract system that underpins language is not the only point of this study, but the fact that it has a deliberate physical form and that physical form had a life of its own is equally important.

1.4 Overview of the Linguistic Environment in Egypt 700 BCE – 300 CE

[39] Henry George Fischer, *L'écriture et l'art de l'Egypte ancienne: quatre leçons sur la paléographie et l'épigraphie pharaoniques* (Paris: Presses universitaires de France, 1986), https://catalyst.library.jhu.edu/catalog/bib_703188.

Before discussing the linguistic environment of the Late Period, a point of clarification on the term "Middle Egyptian" is necessary. Middle Egyptian on the one hand refers to the language stage in use during the Middle Kingdom and into the New Kingdom,[40] but on the other refers to the language stage which occurs in hieroglyphic and hieratic texts from primarily religious contexts, employed as a kind of archaic liturgical language, in the Greco-Roman Period. This latter use, also called Late Middle Egyptian (Spätmittelägyptisch), neo-Middle Egyptian (Neo-Mittelägyptisch), *égyptien de tradition*, and Ptolemaic, has remained controversial in its definition. Late texts artificially preserved the grammatical structure of the classical stage but acquired some graphic and orthographic idiosyncrasies, particularly in Ptolemaic and Roman temple inscriptions. The primary argument revolves around whether or not this use of language constitutes a distinct and coherent language stage adhering to identifiable grammatical rules. Dieter Kurth has been the main proponent for seeing the language in these texts as a distinct linguistic stage, which he calls Ptolemaic.[41] On the other side of the debate, Joachim Quack argues that rather than forming a distinct *linguistic* stage, the language used at this time and in these texts belongs to a *cultural* phenomenon (Kulturphänomen).[42] Much of this debate is beyond the scope of this study, because my focus lies in ancient perceptions rather than the modern distinctions made by scholars. Thus here I use the term Middle

[40] This too can actually be subdivided. Allen calls the Middle Egyptian of the Middle Kingdom "classical Middle Egyptian" and the Middle Egyptian of the Second Intermediate Period through the New Kingdom "late Middle Egyptian" (not to be confused with the Middle Egyptian of the Greco-Roman Period, which also sometimes goes by that term), James P. Allen, *The Ancient Egyptian Language: An Historical Study* (Cambridge: Cambridge University Press, 2013), 3.
[41] Dieter Kurth, "Zur Definition des Ptolemäischen," *GM* 229 (2011): 65–79; Dieter Kurth, *Einführung ins Ptolemäische. Eine Grammatik mit Zeichenliste und Übungsstücken* (Hützel: Backe-Verlag, 2008).
[42] Joachim Friedrich Quack, "Review of Einführung ins Ptolemäische. Eine Grammatik mit Zeichenliste und Übungsstücken, by Dieter Kurth," *Die Welt des Orients* 39 (2009): 130–39; Joachim Friedrich Quack, "Was ist das 'Ptolemäische'?," *Die Welt des Orients* 40 (2010): 70–92.

Egyptian to refer to the language of late texts that attempt to preserve the distinct features of classical Egyptian, but with the understanding that there are orthographic idiosyncrasies not attested in previous periods and influences from later stages of the language. Moreover, the use of the term "Middle Egyptian" with reference to specific texts and passages by no means implies that I see the grammatical form of a given text or genre as universally homogenous.

The linguistic landscape of the latter half of the first millennium BCE and the first centuries CE is marked by an unusual level of heterogeneity in languages and scripts (see Table 1.1 for a summary). At the height of the Greco-Roman Period, both Greek and demotic, and their attendant scripts, were the everyday languages, while archaic Middle Egyptian and the classical hieratic and hieroglyphic scripts to varying degrees were still employed in a priestly environment. There was no simple progression of either script or language stage over the course of these centuries for monumental, religious, or scholarly texts. The archaic use of Middle Egyptian continued in restricted environments well into the Roman Period. By far and wide, the most extensive use was in the hieroglyphic temple inscriptions, but Middle Egyptian also continued in hieratic funerary literature. However, clear evidence contradicts the oft stated idea that *only* Middle Egyptian in the hieratic or hieroglyphic script was appropriate for religious texts. In fact, some hieroglyphic temple inscriptions display demotic grammar, and funerary texts begin to make increasing use of demotic, both the grammar and script, into the Roman period.[43]

Meanwhile, documentary texts progressed along a separate trajectory. Out of the documentary hieratic used during the New Kingdom and into the Third Intermediate

[43] See discussion in Chapter 5.

Period, a distinctive form of hieratic called abnormal hieratic or cursive hieratic developed.[44] This script is mostly associated with Upper Egypt and was employed predominantly in administrative texts, with the notable exception of a single extant literary text,[45] through the 26th dynasty. In the north, traces of another tradition appeared around 700 BCE and coalesced into the distinct form known as demotic in 650 BCE.[46] The term "demotic" refers both to the script and the language stage, which are usually paired together. While demotic began as a documentary script, used mainly for legal texts and letters, it gradually also became the dominant form for literary texts (beginning in the fifth-fourth century BCE) and particular types of late religious texts (beginning in the first century BCE).

Although abnormal hieratic as a script was short lived, the other native Egyptian scripts—hieroglyphic, hieratic, and demotic—did not give way to each other and instead were used in increasingly creative and adaptive ways. Hieroglyphs maintained their association with monumental inscriptions and hieratic with the manuscript tradition. But for temple inscriptions, the hieroglyphic system expanded in complexity and size from

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[44] Michel Malinine, *Choix de textes juridiques en hiératique "anormal" et en démotique (XXVe-XXVIIe Dynastie). Première Partie*, Bibliothèque de l'École des hautes études, sciences historiques et philologiques 300 (Paris: H. Champion, 1953); Michel Malinine, "L'hiératique anormal," in *Textes et Langages de l'Égypte Pharaonique: Cent Cinquante Années de Recherches 1822-1972. Hommage à Jean-François Champollion*, vol. 1, BdÉ 64 (Cairo: IFAO, 1972), 31–35; K Donker van Heel, "Abnormal Hieratic and early Demotic texts collected by the Theban choachytes in the reign of Amasis: papyri from the Louvre Eisenlohr lot" (s.n., 1995); Koenraad Donker van Heel, "Abnormal hieratic isn't dead; it just smells funny," in *Ägyptologische „Binsen"-Weisheiten I–II. Neue Forschungen und Methoden der Hieratistik. Akten zweier Tagungen in Mainz im April 2011und März 2013*, ed. Ursula Verhoeven, vol. 14, Abhandlungen der Geistes-und sozialwissenschaftlichen Klasse Einzelveröffentlichung (Mainz: Akademie der Wissenschaften und der Literatur, 2015), 371–81.

[45] Hans-Werner Fischer-Elfert, "Papyrus Queen's College recto: a narrative in abnormal hieratic," in *Ancient Egyptian Literature: Theory and Practice*, ed. Roland Enmarch and Verena M. Lepper, Proceedings of the British Academy 188 (Oxford: Oxford University Press, 2013), 143–51.

[46] S. P. Vleeming, "La phase initiale du dèmotique ancien," *CdE* 56 (1981): 31–48.

hundreds of signs to thousands of signs.[47] Barbara Richter in her recent publication of the Per-Wer sanctuary in Dendera notes of this complexity, "this expansion of the scribal 'playing field' facilitated the creation of expressions functioning on multiple phonetic, semantic, and visual levels."[48] Moreover, the demotic script was occasionally adapted to transcribe texts whose grammar and vocabulary were Middle Egyptian.[49]

Several centuries into Roman rule, the native Egyptian scripts were eventually superseded by the Greek alphabet, which was used for the Greek language and in a modified form for Coptic. The last hieroglyphic inscription comes from Philae and is dated to 394 CE through an accompanying demotic graffito.[50] The last demotic text, dated to 452 CE, is a Philae graffito as well.[51] Despite these lingering traces, the traditional Egyptian scripts and language stages largely come to an end towards the end

[47] Scholars debate how to evaluate the size of the hieroglyphic repertory in the Ptolemaic period. Assmann and Kurth have suggested an increase from 700/800 to about 7000 signs, see Jan Assmann, *Das kulturelle Gedächtnis: Schrift, Erinnerung und politische Identität in frühen Hochkulturen* (Munich: C.H. Beck, 1992), 182; Dieter Kurth, *Treffpunkt der Götter: Inschriften aus dem Tempel des Horus von Edfu* (Zürich and Munich: Artemis and Winkler, 1994), 285–86. On the assumption that many signs are simply variations, other scholars have estimated an increase to approximately 2000 signs, see Sylvie Cauville, *Dendara: Le fonds hiéroglyphique au temps de Cléopâtre* (Paris: Cybele, 2001), 2; Christian Leitz, *Quellentexte zur ägyptischen Religion. I: Die Tempelinschriften der griechisch-römischen Zeit*, Einführungen und Quellentexte zur Ägyptologie 2 (Berlin: Lit Verlag, 2006), 11.

[48] Barbara A. Richter, *The Theology of Hathor of Dendera: Aural and Visual Scribal Techniques in the Per-Wer Sanctuary*, Wilbour Studies 4 (Atlanta: Lockwood Press, 2016), 14.

[49] Emily Cole, "Interpretation and Authority: The Social Function of Translation in Ancient Egypt" (Dissertation, UCLA, 2015), 212–15; Ghislaine Widmer, "Une invocation à la déesse (tablette démotique Louvre E 10382)," in *Res severa verum gaudium: Festschrift für Karl-Theodor Zauzich zum 65. Geburtstag am 8. Juni 2004*, ed. Friedhelm Hoffmann and Heinz-Josef Thissen (Leuven: Peeters, 2004), 672–73.

[50] Francis Llewellyn Griffith, *Catalogue of the demotic graffiti of the Dodecaschoenus I* (Oxford: University Press, 1935), 126–27, no. 436. See more generally, Stephen Houston, John Baines, and Jerrold Cooper, "Last writing: script obsolescence in Egypt, Mesopotamia, and Mesoamerica," *Comparative Studies in Society and History* 45 (2003): 430–79; Martin Andreas Stadler, "On the Demise of Egyptian Writing: Working with a Problematic Source Basis," in *The Disappearance of Writing Systems: Perspectives on Literacy and Communication*, ed. John Baines, John Bennet, and Stephen Houston (London: Equinox Publishing, 2008), 157–81.

[51] Griffith, *Demotic graffiti,* 102-3 no. 365. Eugene Cruz-Uribe, "The Death of Demotic at Philae, a Study in Pilgrimage and Politics," in *A Tribute to Excellence: Studies offered in Honor of Ernő Gaál, Ulrich Luft, László Török*, ed. Tamás A Bács, Studia Aegyptiaca 17 (Budapest: Université Eötvös Lorand de Budapest, 2002), 163–84. More generally for the graffiti at Philae, see Eugene Cruz-Uribe, *The demotic graffiti from the Temple of Isis on Philae Island* (Atlanta, Georgia: Lockwood Press, 2016).

of the third century. Demotic funerary texts die out around the third or fourth century CE.[52] Both Soknopaiou Nesos and Tebtunis, which had vibrant manuscript traditions well into the second century CE, were abandoned at approximately 250 CE.[53]

From the brief sketch above, it is clear that this period from the beginning of demotic in the seventh century BCE through the third century CE was an incredibly complex linguistic milieu. The negotiation of this environment, both in terms of the Egyptian language versus the Greek language and within the native Egyptian linguistic possibilities themselves, is broadly relevant to understanding Egyptian culture of this period. Moreover, the linguistic preoccupations of the Egyptians are central to larger questions about language use, scribal practice, and bilingualism. Particularly for the use of earlier language stages and scripts in the later periods, the Egyptian's competence in and understanding of archaic texts must be considered. It is in answering questions about what the Egyptians knew and where their scholarly interests lay that this study has the most to contribute to Egyptology.

1.5 Scope of Research

The temporal scope of this study, 700 BCE-300CE, spans a millennium in which numerous political upheavals occurred in Egypt. The political periodization for this time span includes the very tail end of the Third Intermediate Period (1069-664 BCE), the Late Period (the Saite and Persian Periods, 664-332 BCE), the Ptolemaic Period (332-30 BCE), and the Roman Period (30 BCE-395 CE).[54] However, the term "Late Period" is

[52] Foy Scalf, "Passports to Eternity: Formulaic Demotic Funerary Texts and the Final Phase of Egyptian Funerary Literature in Roman Egypt" (Dissertation, University of Chicago, 2014).
[53] Friedhelm Hoffmann, "Hieratic and Demotic Literature," in *The Oxford Handbook of Roman Egypt*, ed. Christina Riggs (Oxford: Oxford University Press, 2012), 557.
[54] Following the dates and periodization in Ian Shaw, ed., *The Oxford History of Ancient Egypt* (Oxford: Oxford University Press, 2000).

also occasionally used in cultural periodization, particularly with respect to language and textual evidence, as a catchall term for the period roughly from the end of the Third Intermediate Period until the end of pharaonic civilization in the third or fourth century CE.[55] This period, once seen as the decline of a civilization in which successive foreign rulers chipped away at the Egyptian culture, is the most linguistically complex of any in the history of ancient Egypt.

Linguistic concerns are the major reason for defining the temporal boundaries as such. As stated above, Demotic arises in the mid-seventh century BCE and the hieratic and demotic manuscript tradition comes to an end in mid-third century CE. Thus, I have deliberately concentrated on the period in which demotic was in use. The development of the demotic script led to a bifurcated written tradition in which hieratic and hieroglyphs occupied a largely religious sphere and demotic, at least in the beginning, assumed the more prosaic, day-to-day writing needs. In other words, a diglossia and a digraphia developed within a purely Egyptian cultural sphere, in addition to the societal bilingualism of a Greek administration and Egyptian populace of the later Greco-Roman period. Scribes, at least elite scribes who had expertise in the gamut of Egyptian linguistic and scriptual possibilities, made deliberate choices about what language and script to use in a given situation. The sociolinguistic situation differs significantly both prior to and after this period.

Within this period however, the complexity of the linguistic landscape extended beyond merely Egyptian language variety, as Greek gradually superseded Egyptian as the

[55] See e.g. Kim Ryholt, "Late Period Literature," in *A Companion to Ancient Egypt*, vol. 2 (Chichester: Wiley-Blackwell, 2010), 709–31; Miriam Lichtheim, *Ancient Egyptian Literature. Volume III: The Late Period* (Berkeley: University of California Press, 1980).

administrative language and the language of the political elite in the Greco-Roman Period. Consequently, the phenomenon of linguistic awareness was surely not restricted to the Egyptian language alone. Both native Greek speakers and native Egyptian speakers who learned Greek as a second language would have possessed varying degrees of Greek linguistic awareness.[56] Yet both are beyond the scope of this study. Much has already been written on Greek conceptions of language generally, both by ancient and modern scholars,[57] and so too Greek conceptions of the Egyptian language, in particular its written forms.[58] A study on native Egyptian speakers' consciousness of Greek would necessarily focus on bilingualism and require a study of the significant corpus of Greek material from Egypt. Such an investigation deserves to be the topic of a study in its own right. Thus my research is constrained not only temporally to the period in which demotic was in use, but also linguistically to the Egyptian language, rather than on issues of Greek-Egyptian bilingualism or general conceptions of the Greek language from the perspectives of either Greek or Egyptian native speakers.

Nonetheless, although I do not focus on Greek linguistic awareness, the Greek cultural milieu cannot be easily extricated from Egyptian scribal practices and scribal thought. The influence of Greek on Egyptian thought and culture looms large over all studies of the Greco-Roman period, and so too here. Bilingual archives, as well as the structure of the administrative system, testify to a significant level of Greek competence

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[56] In the context of the magical papyri, see Jacco Dieleman, *Priests, Tongues, and Rites: the London-Leiden magical manuscripts and translation in Egyptian ritual (100-300 CE), Religions in the Graeco-Roman world* (Leiden: Brill, 2005).

[57] E.g. Plato, *Cratylus;* Dionysius Thrax, *Technē Grammatikē;* Lara Pagani, "Pioneers of grammar. Hellenistic scholarship and the study of language," in *From scholars to scholia. Chapters in the history of ancient Greek scholarship*, ed. Franco Montanari and Lara Pagani, Trends in Classics - Supplementary Volumes 9 (Berlin and New York: De Gruyter, 2011), 17–64.

[58] See e.g. Erik Iversen, *The Myth of Egypt and its Hieroglyphs in European Tradition* (Copenhagen: Gec Gad Publishers, 1961); Vasunia, *The Gift of the Nile: Hellenizing Egypt from Aeschylus to Alexander*.

among native Egyptian scribes.[59] While Egyptian conceptions of the Greek language and Greek conceptions of language generally are not studied in detail here, the potential Greek influence on Egyptian scribes is. The tension between Greek and Egyptian cultural forms, the political and social changes that influenced language policy, and the interests of the Greek in the Egyptian language all provide a backdrop for contextualizing the Egyptian texts.

Coptic material is also beyond the scope of this study, because it would necessitate the consideration of a vastly longer period of time and a consequently larger number of texts. During the period in which Coptic was in use, significant changes occurred in terms of culture and society that distinguish Late Antiquity from earlier periods, including massive political changes and the Christianization of Egypt. To consider the even later aspects of Coptic, particularly Coptic grammars post Islamic conquest, would necessitate an investigation into Arabic and the contemporaneous grammatical scholarship that existed in the Arabic-speaking world. This is a study all to its own. [60]

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[59] Emilio Crespo, "Language Policies," ed. Georgios K. Giannakis, *Encyclopedia of Ancient Greek Language and Linguistics* (Leiden: Brill Online, 2013)., Marja Vierros, *Bilingual Notaries in Hellenistic Egypt: a study of Greek as a second language*, Collectanea Hellenistica 5 (Brussels: Publikatie van het Comité Klassieke Studies, Subcomité Hellenisme, Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten, 2012).

[60] See e.g. for Coptic education and its relationship to Greek: Raffaella Cribiore, "Greek and Coptic education in late antique Egypt," in *Ägypten und Nubien in spätantiker und christlicher Zeit: Akten des 6. Internationalen Koptologenkongresses. Münster, 20.-26. Juli 1996*, vol. 2 (Wiesbaden: Reichert, 1999), 279–86; Scott Bucking, *Practice makes perfect: P. Cotsen-Princeton 1 and the training of scribes in Byzantine Egypt* (Los Angeles: Cotsen Occasional Press, 2011); Scott Bucking, "Towards an archaeology of bilingualism: on the study of Greek-Coptic education in late antique Egypt," in *Multilingualism in the Graeco-Roman worlds*, ed. Alex Mullen and Patrick James (Cambridge: Cambridge University Press, 2012), 225–64; Sofía Torallas Tovar, "What is Greek and what is Coptic? School texts as a window into the perception of Greek loanwords in Coptic," in *Ägypten und sein Umfeld in der Spätantike: vom Regierungsantritt Diokletians 284/285 bis zur arabischen Eroberung des Vorderen Orients um 635-646. Akten der Tagung vom 7.-9.7.2011 in Münster* (Wiesbaden: Harrassowitz, 2013), 109–19. For the relationship between Coptic and Arabic, particularly in terms of grammars, see: Adel Sidarus, "Medieval Coptic grammars in Arabic: The Coptic Muqaddimāt," *Journal of Coptic Studies* 3 (2001): 63–79; A.

Second, Coptic cannot be analyzed without the Greek evidence. At a fundamental level, there are certain circumstances under which Greek and Coptic cannot be distinguished from each other. In particular, elementary alphabetic exercises in Greek can look identical to those in Coptic, if no Coptic letters are preserved. The Coptic adoption of the Greek alphabet to write the Egyptian language testifies to the influence of Greek scribal practice and education on the Egyptian populace, particularly the literary culture. It would be pointless to try and identify purely Egyptian concepts of language in Coptic without giving equal weight to the role of Greek. As Greek is beyond the scope of this study, so too must Coptic. However, as stated above regarding Greek, the use of Old Coptic when it touches upon texts already under consideration will of course be discussed.

1.6 Outline of chapters

This study looks both at evidence for language awareness in Egyptian texts and also the role that such texts might have played in the broader scribal culture. To this end, the study is divided into three parts. The first looks primarily at demotic texts and the schooling environment. In Chapter 2, I discuss the grammatical texts and the alphabetically organized texts. These include paradigms, other types of grammatical exercises, alphabetically organized lists, and other texts with some form of alphabetic structure. The vast majority of these texts are in demotic and have long been seen as part of the schooling process.

In Chapter 3, I examine scribal education. The issue is approached from two different perspectives, the Egyptian and the Greek, each of whose system of scribal

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Fouad Khouzam and Bibliothèque nationale de France, *La langue égyptienne au moyen âge: le Manuscrit copte 44 de Paris de la Bibliothèque nationale de France* (Paris: Harmattan, 2002).

education is discussed. Ultimately, I argue that the grammatical and alphabetic texts described in Chapter 2 are not in fact the product of Greek influence on the Egyptian system, primarily because the Egyptian evidence predates any significant Greek presence in Egypt. Nonetheless, I do analyze how the prevalence of these texts were a response to a complex sociolinguistic environment. I see these texts as rising out of the needs of local scribes and by the second century CE, Greek had become embedded in Egyptian scribal circles to the extent that its alphabet was exploited as a pronunciation aid.

The next two chapters belong to the second part of the study. In chapter 4, I analyze onomastica and two sign lists. In contrast to the previous section, many of these texts are in hieratic. These lists in both hieratic and demotic increasingly contain content related to temple contexts and focus on words and signs in the abstract. These lists transmit not just a list of things, but also information regarding orthography, lexical nuances and parallels, and phonetic value. Both this information and the actual content of the list, I claim, constituted priestly knowledge.

Chapter 5 contextualizes these texts in their place of production and use: the House of Life. I contend that by breaking the language and writing system down into the basic units of words and signs, organizing those units in structured lists, and providing explanations for entries, elite scribes had the resources to interact effectively with the long tradition of religious and mortuary texts at a time when Middle Egyptian and the classical hieroglyphic and hieratic scripts were already ancient and beyond the ability of most scribes. I also show how this activity was part of a broader range of linguistic activities that took place in the House of Life, such as intralingual translation and transcription between scripts.

Finally, I conclude with an epilogue that considers some meta-discussions of language that occur in temple handbooks and in references in temple inscriptions and funerary material. Woven through these technical texts is a tension between the visual aspect of the written form and its potential meanings on the one hand and the phonetic value realized in pronunciation on the other hand. This tension is also implied when language occurs as a motif in scholarly temple texts, such as descriptions of hieroglyphs as talking animals in the Book of Thoth. Elite temple scribes, I argue, are actively engaged in mastering and transmitting the complex relationship between visual and auditory meaning across script and language stage in order to include wordplay in contemporaneous produced demotic, hieratic, and hieroglyphic texts.

Table 1.1
Typical Use of Native Egyptian Language Stages and Scripts 1000 BCE – 300 CE

	Third Intermediate Period		Greco-Roman Period	
Genre	Language Stage	Script	Language Stage	Script
Temple inscriptions	Middle Egyptian, occasional elements of Late Egyptian	hieroglyphic	Middle Egyptian, some demotic, occasional elements of Late Egyptian	hieroglyphic
Other monumental inscriptions (stelae, statues, etc.)	Middle Egyptian, some Late Egyptian	hieroglyphic	Middle Egyptian, some demotic	hieroglyphic, demotic
Funerary Texts	Middle Egyptian	hieratic, hieroglyphic	Middle Egyptian, some demotic	hieratic, demotic
Religious texts (hymns, magical texts, etc.)	Middle Egyptian	hieroglyphic, hieratic	Middle Egyptian, some demotic	hieroglyphic, hieratic, demotic
Scholarly Texts	Middle Egyptian	hieratic	Middle Egyptian, demotic	hieroglyphic, hieratic, demotic
Literary texts	Late Egyptian	hieratic, rare abnormal hieratic	demotic	demotic
Documentary texts	Late Egyptian, demotic	hieratic, abnormal hieratic	demotic	demotic

PART I—DEMOTIC SYSTEMIZATION

Chapter 2. Grammar and Alphabetic Organization in Demotic

Demotic texts display a remarkable diversity in terms of subject matter and genre, including many types of texts that have little to no parallel in previous periods. Among the textual genres generally associated with demotic are grammatical and alphabetical texts. Grammatical exercises, sporadically preserved though they are, have attracted occasional interest since Brugsch published the first example in 1878. Scholars invoke the exercises both as evidence of Egyptian schooling and as the best surviving evidence of linguistic awareness, specifically grammatical awareness, in Egypt. Borghouts, referring to such exercises, wrote: "while copying texts (classical and contemporary) was the chief part of the apprentice scribe's homework, testimony to more theoretical reflection consists of a few brief grammatical exercises, which contain the germs of theory."[1] An alphabetic order in Egyptian texts was first recognized only in 1983, but they too have been linked to schooling and a systemization of language characteristic of the Greco Roman period.

In this chapter I present the content of the grammatical and alphabetic texts and link them to certain aspects of scribal culture, but leave a discussion of their role in schooling to the next chapter. I begin here by introducing the grammatical exercises and analyzing their organization and structure. I lay out the ways in which the exercises might

[1] Joris F. Borghouts, "Indigenous Egyptian Grammar," in *History of the Language Sciences: An international handbook on the evolution of the study of language from the beginnings to the present*, ed. Sylvain Auroux et al., Handbücher zur Sprach- und Kommunikationswissenschaft 18 (Berlin: Walter de Gruyter, 2000), 7.

have connected to current scribal practices, demonstrate a continuity with earlier practices from the New Kingdom, and contend that these activities reflect scribal practice from throughout Egypt. The second section of this chapter turns to the organization of alphabetical texts, with particular emphasis on the ways in which alphabetic organization was combined with other strategies of organization. I show that this technique at least partially derives from the same context as grammatical exercises and shares many of the same functions. However, the alphabetic sequence, particularly when expressed through the bird alphabet, occurred in literary and scientific texts as well. Finally, I demonstrate that both strategies had their origins in the New Kingdom, but maintain that the Greco-Roman examples functioned in distinct ways that were specific to the linguistic environment of that period.

2.1 Grammatical texts

For the purposes of this investigation, I define grammatical exercises as texts that contain repeated grammatical constructions and whose repetition suggests that the grammatical form was prioritized over the semantic content. This encompasses both texts that are clearly paradigms and texts that embed grammatical forms in a larger context. The prioritization of the grammatical form over the semantic content is a necessary qualification because the simple repetition of a grammatical form also characterizes certain types of literary texts and non-grammatical technical texts, such as omens. For example, many sections of the Instructions of Onchsheshonqy contain stichic series of e.g. admonitions beginning with the negative imperative *m-ỉr*;[2] wishes beginning with the

[2] E.g. Onchsheshonqy 6/10-24; 7/3-9; 7/11-17; etc.

contrary-to-fact particle *ḥmy*,[3] aphorisms expressed in the second tense (*ỉ.ỉr*),[4] and more. In these cases, this repetition functions as a literary device characteristic of that particular literary genre, i.e. wisdom literature. Yet a fragment from one of these sections, if considered out of context, could easily be seen as a grammatical exercise because each line would begin with the same grammatical form. Similarly, certain other genres of texts are reliant on repeated grammatical constructions, e.g. dream texts.[5] It would be easy to mistake dream book fragments, such as pTebt. Tait 16 and 17 that preserve only the beginnings of several lines, as grammatical exercises if clear demotic parallels to other dream books did not exist.[6]

Even for certain texts that have been included in the corpus, some are fragmentary enough that their identification is ambiguous. While I can find no current parallels for these few ambiguous fragments among other genres of texts that does not mean that future scholars will not be able to identify them as something other than grammatical exercises. Moreover, the reverse is also problematic. Although I have excluded fragments of clearly identifiable literary texts from the corpus, there is still the possibility that literary texts with the above mentioned types of repetition were in fact employed in a dual manner, both as a literary exercise[7] and as a grammatical exercise.

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[3] E.g. Onchsheshonqy 10/11-25; 11/1-4; etc.
[4] E.g. Onchsheshonqy 19/22-25; etc.
[5] Demotic dream books have entries in which the protasis (i.e. the description of what was seen or occurred in the dream) is phrased as a circumstantial present: *ỉw.f ṯ sḏm*. See Luigi Prada, "Classifying dreams, classifying the world: ancient Egyptian oneiromancy and demotic dream books," in *Current Research in Egyptology 2011: Proceedings of the Twelfth Annual Symposium Durham University 2011*, ed. Heba Abd El Gawad et al. (Oxford: Oxbow Books, 2012), 167–77.
[6] W.J. Tait, *Papyri from Tebtunis in Egyptian and in Greek*, Texts from the Excavations 3 (London: Egypt Exploration Society, 1977), 56–61.
[7] For a discussion of demotic literary exercises, see Chapter 3.

2.1.1 Textual corpus

The corpus of grammatical texts is fragmentary; largely lacking in even a general provenance, much less a clear excavated context; and diverse in content. Moreover, given the lack of excavated context and the absence of any regnal year dates, the date of the texts can only be established through palaeography. As a result, the dating is relative and can be narrowed down to a given century at best or in some cases only a period (i.e. Ptolemaic or Roman).

In the following section I present the grammatical exercises, organized by provenance. These texts occur on both papyri and ostraca. I focus here primarily on introducing the texts, their geographic and temporal scope, as well as other physical features. The general information (date, provenance, material, etc) presented below is summarized in Table 2.2 at the end of this chapter, along with all relevant information concerning original publication.

2.1.1.1 Texts with provenance

Grammatical exercises can be linked to only two sites with any certainty: Tebutnis and Thebes. The lack of provenance is unfortunate since it affects the degree to which we can understand the texts in the living landscape. Yet despite the sparse evidence, it is important to note that the exercises are clearly attested both in the Fayum and Upper Egypt. In other words, these exercises did not just occur in the more Greek dominated areas of the Delta and Fayum, but also in the south.[8] Piecemeal though the

[8] Clarysse notes that Greeks were a small minority in Thebes, Willy Clarysse, "Greeks in Ptolemaic Thebes," in *Hundred-gated Thebes: acts of a colloquium on Thebes and the Theban area in the Graeco-Roman period*, ed. Sven Vleeming (Leiden: Brill, 1995), 1–19. More generally see Naphtali Lewis, *Greeks in Ptolemaic Egypt: Case Studies in the Social History of the Hellenistic World* (Oxford: Clarendon Press, 1986).

evidence may be, this distribution indicates that the exercises belonged to a broad trend in Egyptian scribal culture. Unfortunately, not enough evidence exists to address the issue of possible geographic variation in the schooling process. At this stage, the only viable conclusion is that the patchwork nature of the evidence merely reflects the varying levels of preservation throughout Egypt. Significantly more provenanced sources would be necessary even to begin to approach the question of geographical differences in curricula.

As might be expected, there are grammatical exercises attested from Tebtunis. In terms of Late Period sites, Tebtunis is one of the richest sources of written material—demotic, Greek, and hieratic—from the Greco-Roman period. Unfortunately for much of that papyri, there is no specific excavated context. Tebtunis has had a particularly fraught excavation history, through a combination of plundering of the site by local villagers and early archaeological excavations more concerned with finding papyri than recording their location.[9] No account of the three official expeditions--Grenfell and Hunt in 1899/1900, a German expedition under Otto Rubensohn in 1902, and an Italian excavation under Carlo Anti in 1930 to 1935—was ever published describing the location of papyri.[10] Attempts to reconstruct possible physical locations for certain finds have begun in recent years, but

[9] This is compounded by the dispersion of the texts, either via the excavation itself or through the antiquities market, in numerous institutions across the world, particularly Copenhagen, Florence, Berlin, and Berkeley among others. Furthermore, Egyptian material was typically separated from the Greek material.

[10] There was also a brief Italian survey under Evaristo Breccia in 1929. Excavation resumed at Tebtunis in 1988 under a joint IFAO and University of Milan project. See the summaries of the earlier activities and the resumption of excavation in Claudio Gallazzi and Gisèle Hadji-Minaglou, *Tebtynis I: La reprise des fouilles franco-italiennes et le quartier de la Chapelle d'Isis-Thermouthis*, FIFAO 42 (Cairo: IFAO, 2000), 3–16; Vincent Rondot, *Tebtynis II: Le temple de Soknebtynis et son dromos*, FIFAO 50 (Cairo: IFAO, 2004), 1–6. For a discussion of texts discovered as part of the recent excavations, see Ivan Guermeur, "Les papyrus hiératiques de Tebtynis: un aperçu du matériel issu des fouilles 2008-2010," in *Von der Pharaonenzeit bis zur Spätantike: kulturelle Vielfalt im Fayum. Akten der 5. Internationalen Fayum-Konferenz, 29. Mai bis 1. Juni 2013, Leipzig*, ed. Nadine Quenouille (Wiesbaden: Harrassowitz, 2015), 17–37.

the lack of specific locations and the subsequent divvying up of the papyri among various institutions across the world remains a major issue.[11]

Nonetheless, there is one key group of papyri from Tebtunis, known as the Tebtunis temple library, which can be generally located at the site. [12] While the British and German expeditions yielded some portion of the library, the bulk of this material was excavated by Anti in 1931, as well as by local villagers. He discovered a cache of papyri in two cellars near the temenos wall.[13] Currently the precise location of these cellars is debated, but what is known is that the material was deposited together within the precinct of the temple.[14] The papyri consist of several hundred texts from the first and second centuries CE. Predominately cultic, scientific, and literary in nature, the manuscripts are mostly demotic, with a significant portion of hieratic, and a few hieroglyphic and Greek texts.[15]

While Tebtunis is exceptional in terms of preservation, it was not exceptional in the socio-cultural sense. This stands in contrast to the New Kingdom site of Deir el-Medina, from which exceptional amounts of written material discovered in and around

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[11] E.g. Elisabeth O'Connell, "Recontextualizing Berkeley's Tebtunis Papyri," in *Proceedings of the 24th International Congress of Papyrology, Helsinki, 1-7 August, 2004*, ed. Jaakko Frösén, Tiina Purola, and Erja Salmenkivi (Helsinki: Societas Cientarum Fennica, 2007), 807–26.

[12] For the contents generally, see Kim Ryholt, "Libraries in ancient Egypt," in *Ancient Libraries*, ed. Jason König, Katerina Oikonomopoulou, and Greg Woolf (Cambridge: Cambridge University Press, 2013), 23–37. and Kim Ryholt, "On the Contents and Nature of the Tebtunis Temple Library: A Status Report," in *Tebtynis und Soknopaiu Nesos: Leben im römerzeitlichen Fajum. Akten des Internationalen Symposions vom 11. bis 13. Dezember 2003 in Sommerhausen bei Würzburg*, ed. Sandra Lippert and Maren Schentuleit (Wiesbaden: Harrassowitz, 2005), 141–70. For religious texts, see Alexandra von Lieven, "Religiöse Texte aus der Tempelbibliothek von Tebtynis – Gattungen und Funktionen," in *Tebtynis und Soknopaiu Nesos: Leben im römerzeitlichen Fajum. Akten des Internationalen Symposions vom 11. bis 13. Dezember 2003 in Sommerhausen bei Würzburg*, ed. Sandra Lippert and Maren Schentuleit (Wiesbaden: Harrassowitz, 2005), 57–70. For the hieratic and hieroglyphic texts, see Joachim Friedrich Quack, "Die hieratischen und hieroglyphischen Papyri aus Tebtynis - ein Überblick," in *Hieratic Texts from the Collection*, ed. Kim Ryholt, CNI Publications 30 (Copenhagen: Museum Tusculanum Press, 2006), 1–7.

[13] Rondot, *Tebtynis II*, 31.

[14] Ryholt, "Libraries," 27.

[15] Ryholt give the percentages as 63% demotic, 32% hieratic, 4% hieroglyphic, and 1% Greek as of 2005. Ryholt, "On the Contents and Nature," 143.

the workers' village have survived too, but whose residents occupied an unusual position within the society. Residents of Deir el-Medina, as the workers responsible for the royal tombs, had a higher than average rate of literacy[16] and may have produced written material—through scribal education, the necessities of daily life, and occupational duties—in unusually high numbers. In other words, Deir el-Medina does not represent a microcosm of Egyptian town life itself and its evidence contains idiosyncrasies that may not be applicable to the rest of Egypt.

Tebtunis in contrast was a prosperous Fayumic temple town. Along with the papyri, its temple dedicated to Soknebtunis (a crocodile form of Sobek), smaller temples, dromos, temenos wall, houses, and cemeteries are indicative of a significant administrative center, but not a social or cultural outlier. Its location, at the southern edge of the Fayum, beyond the current area of cultivation is perhaps most noteworthy since such a dry location allowed for the preservation of papyri. In other words, the temple library, as well as the other papyri from the town, can be seen as representative of temple libraries, and Graeco-Roman towns, across Egypt.[17]

However, while conclusions regarding Tebtunis can be extrapolated to a certain extent, evidence also suggests that significant regional variation may have occurred. The

[16] Janssen argues for widespread literacy in Deir el-Medina, but even if his more sweeping assesment is not accepted, he uses the more conservative estimate by Baines and Eyre of "20 fully literate persons" from the village to establish a lower literacy limit of 25-30 percent of the male population, an estimate still much higher than Baines and Eyre's generally accepted estimate of 1% for the general population of the Old Kingdom and by extrapolation the later periods. See Jac. J. Janssen, "Literacy and Letters at Deir el-Medîna," in *Village Voices: Proceedings of the symposium "Texts from Deir el-Medîna and their interpretation" Leiden, May 31-June 1, 1991*, ed. R.J. Demarée and A. Egberts, Centre of Non-Western Studies Publications 13 (Leiden: Centre of Non-Western Studies Publications, 1992), 81–94. For the Baines and Eyre study, see John Baines and Christopher Eyre, "Four notes on literacy," *GM* 61 (1983): 65–96.

[17] Ryholt even suggests that the Tebtunis temple library should be seen as representative of earlier institutions. Ryholt, "Libraries," 26.

other major source of papyri from the Greco-Roman period is Soknopaiou Neso, from which comparable numbers of papyri have been recovered. Despite the fact that both Soknopaiou Neso and Tebtunis are located in the Fayum, the breakdown of the proportions of demotic, hieratic, and Greek material look quite different from Tebutnis. And if we turn to the other major Fayumic site with significant numbers of written material from the Roman Period, Medinet Madi, an entirely different picture is presented.

Four texts in this corpus are likely from Tebtunis. Two, P. Carlsberg 12[18] and P. Carlsberg 454,[19] are currently in Copenhagen and the other two, published by Bresciani,[20] are in Florence. The two Florence texts are almost certainly from the temple library and came to Florence from Anti's excavations.[21] The two Carlsberg pieces, due to their presence in the Copenhagen collection and their date around the second century CE,[22] may also belong to the temple library. Thus, grammatical exercises in demotic can be linked to the scribal activities of the temple in Tebtunis.

The second location to which grammatical exercises are linked is Thebes. Three texts, two ostraca and one wooden tablet, likely derive from that area. The first ostracon, ODK-LS 2, is indisputably from Karnak, as it was excavated by the Centre Franco-Egyptien d'Etude des Temples de Karnak as part of their work around the sacred lake.[23]

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[18] Aksel Volten, "An 'Alphabetical' Dictionary and Grammar in Demotic," *Archiv Orientální* 20 (1952): 496–508.
[19] W.J. Tait, "P. Carlsberg 450-5. Fragments of Demotic Word-Lists," in *The Carlsberg Papyri 3: A Miscellany of Demotic Texts and Studies*, ed. P.J. Frandsen and Kim Ryholt, CNI Publications 22 (Copenhagen: Museum Tusculanum Press, 2000), 90.
[20] These two texts have no PSI inventory number. Edda Bresciani, "Testi lessicali demotici inediti da Tebtuni presso l'Istituto," in *Grammata Demotika: Festschrift für Erich Lüddeckens zum 15. Juni 1983*, ed. Heinz Josef Thissen and Karl-Th. Zauzich (Würzburg: Gisela Zauzich Verlag, 1984), 1–9.
[21] Ibid., 1.
[22] Volten, "An 'Alphabetical' Dictionary and Grammar in Demotic," 496; Tait, "P. Carlsberg 450-5," 90.
[23] Didier Devauchelle, "Remarques sur les méthodes d'enseignement du démotique (À propos d'ostraca du Centre Franco-Égyptien d'Étude des Temples de Karnak)," in *Grammata Demotika: Festschrift für Erich Lüddeckens zum 15. Juni 1983*, ed. Heinz Josef Thissen and Karl-Th. Zauzich (Würzburg: Gisela Zauzich Verlag, 1984), 47.

Other texts likely associated with scribal education, such a model letter with a number exercise on the verso and ostraca with drawings and perhaps practice hieroglyphs, were also found around the sacred lake and north of the Bubastide wall.[24] The second ostracon—O. Leiden dem. 359—although purchased on the antiquities market by J.H. Insinger before being donated to the museum in Leiden also likely came from the Theban area. Insinger's letters indicate that he believed the group of demotic ostraca to which this one belonged were from "Luxor and Karnak." Moreover, internal evidence, such as specific Theban formulae and known Theban individuals, from many ostraca in this group suggest that Thebes was in fact the correct provenance.[25] Unfortunately, nothing more specific can be said. The last text with a potential Theban origin is a wooden tablet, E9846, now in the Louvre.[26] In the original published description, now obsolete as the tablet was misunderstood as a "list of tombs," it was said to come from Djème (i.e. Medinet Habu in western Thebes).[27] The reasons for this attribution, however, are unclear.

2.1.1.2 Texts without provenance

Unfortunately, as is so often the case, the majority of exercises have no provenance and their contents offer little to no evidence to speculate. For the two earliest published demotic exercises, O. Ashmolean 726[28] and an ostracon published by Hess, there is no information. In fact, for the Hess ostracon, its current location is not known.

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[24] See ODK-LS 3-5 and ODK-NMB 1: Ibid., 51–52.
[25] M.A.A. Nur el-Din, *The Demotic Ostraca in the National Museum of Antiquities at Leiden* (Leiden: Brill, 1974), 1–2.
[26] Günter Vittmann, "Tablette en bois avec exercice scolaire démotique," forthcoming.
[27] Eugène Revillout, *Notice des papyrus démotiques archaïques et autres texte juridiques ou historiques: traduits et commentés à ce double point de vue, à partir du règne de Bocchoris jusqu'au règne de Ptolémée Soter* (Paris: J. Maisonneuve, 1896), 441.
[28] Nathaniel Reich, "A Grammatical Exercise of an Egyptian Schoolboy," *JEA* 10 (1924): 285–88.

Similarly nothing is known of the provenances for Bod. Eg. Inscr. 683,[29] two Berlin papyri (12902 and 13639),[30] and P. Vienna D6464.[31] An ostracon with an exercise is in a private Italian collection and presumably was purchased on the antiquities market.

A series of fragments now in the British Museum—BM EA 10856.1A, 10856.2A, 10856.2B, 10856.3A, 10856.3C—originally belonged to the Michaelidis collection[32] and were subsequently donated. These fragments are treated here as separate texts, but it is quite difficult to determine whether or not some of the fragments originally belonged to a single papyrus or were from various papyri of similar appearance and handwriting.

2.1.1.3 Texts not considered

Several texts that have been identified as grammatical exercises in various previous studies are excluded from this corpus. The two major reasons for their exclusion is either that the text is so fragmentary or poorly preserved that little sense can be made or that the text may plausibly be another type of text, such as a receipt or document of some kind. For example, in addition to the fragments from the Michaelides collection included here, Bresciani also published two small fragments--2H and 2I[33]--that she identified as exercises.[34] However, fragment 2H only preserves the middle of five lines and the contents give no indication that the text was in fact an exercise of some kind. Similarly, fragment 2I preserves only three lines with approximately two signs each.

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[29] Ursula Kaplony-Heckel, "Schüler und Schulwesen in der agyptischen Spätzeit," *SAK* 1 (1974): 246.
[30] Wilhelm Spiegelberg, *Demotica I*, Sitzungsberichte der Bayerischen Akademie der Wissenschaften, Philosophisch-Philologische und Historische Klasse, Abh. 6 (München: Bayerische Akademie der Wissenschaften, 1925), 18–22; Wilhelm Spiegelberg, *Demotica II*, Sitzungsberichte der Bayerischen Akademie der Wissenschaften, Philosophisch-Philologische und Historische Klasse, Abh. 2 (München: Bayerische Akademie der Wissenschaften, 1928), 6.
[31] Kaplony-Heckel, "Schüler und Schulwesen in der agyptischen Spätzeit," 245.
[32] Edda Bresciani, *Testi Demotici nella Collezione Michaelidis*, Orientis Antiqui collectio 2 (Rome: Centro per le Antichitá e la Storia dell'Arte del Vicino Oriente, n.d.).
[33] BM EA 10856.1E and 10856.2G, respectively.
[34] Bresciani, *Testi Demotici nella Collezione Michaelidis*, 23–24.

Bresciani calls the fragment an "esercizio sul vetitivo *m.ir*," but I can only see one possible trace of the *m.ir* sign, and even that is tentative. There is no positive evidence that either of these two fragments were exercises of any kind, much less grammatical exercises.

I have also excluded the ostraca from Narmouthis (Medinet Madi)[35] from the analysis of grammatical exercises. Although this sizable group of ostraca may derive in part from a school context[36] and many individual ostraca have been called scribal exercises, the difficulty of the paleography, the strong bilingual Greek-demotic character of their contents, and their terseness have impeded a full understanding. One of the peculiar features of these texts is that many of the demotic and bilingual texts have Greek numbers, which recent studies have shown link together groups of texts into series of notes. One set, ODN 100-188, seems to have been the personal notes of a scribe Phatres concerning certain administrative and official events about which the scribe was writing an official document.[37] Another sequence appears to have been instructional notes for an apprentice in the library.[38] These recent interpretations have shown that ostraca originally

[35] The ostraca were discovered in the late 1930s by Achille Vogliano in a building within the temple precinct at Narmouthis. Only several hundred out of nearly 1500 (of which 40% are demotic, 40% are Greek, and 20% are bilingual) have been published. For a summary of the excavation history and nature of the ostraca, see Paolo Gallo, *Ostraca demotici e ieratici dall'archivio bilingue di Narmouthis, II (nn. 34-99)*, Quaderni di Medinet Madi 3 (Pisa: ETS, 1997), xxxi-xl. The major publications of the demotic and bilingual material, including the Gallo's work, are: Edda Bresciani, Sergio Pernigotti, and Maria Carmela Betrò, *Ostraka demotici da Narmuti I (nn. 1-33)*, Quaderni di Medinet Madi 1 (Pisa: Giardini, 1983); Angiolo Menchetti, *Ostraka demotici e bilingui da Narmuthis: ODN 100-188*, Biblioteca di studi egittologici 5 (Pisa: ETS, 2005). For the Greek material, see Rosario Pintaudi and P. J Sijpesteijn, *Ostraka greci da Narmuthis (OGN I)*, Quaderni di Medinet Madi 2 (Pisa: Giardini, 1993).
[36] See the discussion in 3.3.3.2.
[37] Menchetti, *Ostraka demotici e bilingui da Narmuthis*, 15–23.
[38] Sara Giannotti, "Istruzioni per un apprendista bibliotecario negli ostraka demotici e bilingui di Narmuthis," *EVO* 30 (2007): 117–52.

deemed "exercises," largely because they were otherwise nonsensical, may in fact have served another purpose.[39]

Thus Narmouthis ostraca that were originally identified as various types of verbal exercises are not included here for two reasons. First, they do not meet the criteria for repetition and second, they have another plausible function. For example, ODN 1 and ODN 2[40] were each originally published as an "esercizio sul futuro negativo."[41] Bresciani in a reedition reiterated this view and further suggested "that the two exercises also focus on two different uses of *tb*, as a verb and as a preposition respectively."[42] Yet their content is plausibly a note, memo, or receipt. ODN 1 reads "I will not forget them and I will compensate you (for it). Year 27, 2nd month of Akhet. (Greek) 27" and ODN 2 reads "(Greek) 3. You will not forget them because I gave (them) to you. Year 27, 2nd month of Akhet, day 29 (?). Because of the error that they made. (Greek) 3." Both ostraca have Greek numbers suggesting they belong to a sequence, perhaps of administrative notes or receipts. I see no reason to discount the content itself, as well as the numbering system, and assume they were a simply exercise for the negative future. On these same grounds, I have also excluded ODN 23 ("esercizio sulla finale negativa *r tm tj*") and ODN 32 ("esercizio sull'ottativo").[43] In fact, none of the published Narmouthis ostraca resemble any of the clear demotic grammatical exercises. Ostraca containing writing exercises of

[39] E.g. the interesting connection drawn by Quack between the Phatres archive and P. Rylands 9, Joachim Friedrich Quack, "Review of Angiolo Menchetti: Ostraka demotici e bilingui da Narmuthis (ODN 100-188)," *Enchoria* 30 (July 2006): 174–81.
[40] TM 50140 (OMM 1227) and TM 50141 (OMM II), respectively.
[41] Bresciani, Pernigotti, and Betrò, *Ostraka demotici da Narmuti I*, 7–8.
[42] Edda Bresciani et al., "The Publication Project of the Ostraka from Medinet Madi (Cairo Museum J.E. 8/4/48/1)," in *Egyptian Museum Collections around the World: Studies for the Centennial of the Egyptian Museum, Cairo*, ed. Mamdouh Eldamaty and Mai Trad, vol. 1 (Cairo: Supreme Council of Antiquities Press, 2002), 165.
[43] TM 50162 (OMM 223) and TM 50171 (OMM 121), respectively.

various (non-grammatical) types are considered in the discussion of scribal education in Chapter 3.

2.1.2 Content: Verbal and syntactic forms

The grammatical exercises are diverse in content and extent. There is no apparent pattern between the material (papyrus, ostracon, or wood board) and the type of exercise. There is however a correlation between length and material, which is not unexpected, as most longer texts are written on papyrus.[44] The two longest texts, P. Carlsberg 12 and P. Vienna D6464, are on papyri and each preserves multiple exercises covering a variety of grammatical forms. In contrast, the 7 ostraca in the corpus all contain exercises on a single grammatical form, with the possible exception of O. Ashmolean 726 which preserves both the active and passive forms of nominalized relative clauses (see Ex. 2.1). The two long papyri are likely teacher's handbooks, while the ostraca were the work of students.

The majority of the exercises focus on the partial or full formation of a verbal form. There is also an emphasis on noun formation (generally agent nouns of the form *rmṯ ỉw=f* "a man who") that use the virtual relative or nominalized relatives. None of the exercises contain Middle Egyptian grammatical forms; all texts are both written in the demotic script and represent demotic grammatical forms.[45] While not every possible demotic verbal form is represented, a significant swath of the verbal possibilities, as well

[44] Although it is not common for ostraca and wooden boards to contain long texts, they do occur. E.g. the Ashmolean ostracon of Sinuhe preserves nearly the complete text of the story, John W.B. Barns, *The Ashmolean Ostracon of Sinuhe* (Oxford: Oxford University Press, 1952); the demotic "gardening agreement" occupies four long columns of a vessel, Richard A. Parker, "A Late Demotic Gardening Agreement: Medinet Habu Ostracon 4038," *JEA* 26 (1941): 84–113; and the Krugtexte are quite substantial, Wilhelm Spiegelberg, *Demotische Texte auf Krügen*, Demotische Studien 6 (Leipzig: J.C. Hinrichs, 1912).

[45] While certain forms, such as the *sḏm=f*, are of course also Middle Egyptian forms, there is no evidence that such forms in the exercises represent anything other than the typical demotic use of that form.

as several other constructions, are attested. Certain grammatical forms are ambiguous and since the paradigms list the forms without any context, it is impossible to tell which form was intended. In cases where some ambiguity exists, usually the most common form is assumed. See Table 2.1 below for the attested grammatical constructions:

Table 2.1
Constructions in Grammatical Exercises

Grammatical Form	**Text**
sḏm.f[46]	P. Vienna D6464, P. Carlsberg 12, P. BM 10856.1A
First Present	P. Hamburg D33
Second tense (*ỉ.ỉr=f sḏm*)[47]	P. Vienna D6464
Negative Past (*bn-pw=f sḏm*)	P. Vienna D6464, Berlin 12902
Negative Future (*bn-iw=f sḏm*)	P. Vienna D6464
Terminative (*šᶜ.tw=f sḏm* "until he hears/until he has heard")	P. Carlsberg 12
Optative (*my sḏm=f* "let him hear")	P. Berlin 13639
Negative imperative	P. BM 10856.1A, P. BM 10856.3C
Periphastic imperative	O. Private Collection
Relative (with participle)	O. Ashmolean 736
Relative (with nty)	O. Bod. Eg. 683, P. Carlsberg 454, P. Bresciani, Lüddeckens 1
Virtual Relative	P. Carlsberg 12, ODK-LS2, O. ZÄS 35 no. 2
Direct Speech	O. Leiden Dem. 359
Particle *tw=s*	P. BM 10856.2A, P. BM 10856.2B
Prepositions	P. BM 10856.3A

[46] The *sḏm=f* is inherently ambiguous in all stages of Egyptian. In Demotic, the *sḏm=f* is typically used for the past tense, particularly in narrative (Janet H Johnson, *Thus wrote 'Onchsheshonqy: an introductory grammar of Demotic*, SAOC 45 (Chicago: Oriental Institute of the University of Chicago, 1986), §27). However, the *sḏm=f* also occurs regularly as the object of the verb *dỉ* "to cause": e.g. *dỉ=y sḏm=k* "I made you hear" (Ibid., §111). What appears to be a *sḏm=f* may also be an infinitive plus a suffix pronoun.
[47] The *ỉ.ỉr* converter is also ambiguous. While it can be used for both a present or a past second tense, it is also identical to the relative converter for a past relative clause. However, in the case of a relative, the *ỉ.ỉr* converter was only used when the subject of the relative clause was identical to the antecedent, and hence no conjugation of the converter was necessary. Thus when *ỉ.ỉr=* occurs with personal pronouns, it functions as a second tense marker, not a relative converter. (See Johnson, *'Onchsheshonqy,* §84 and 95-98).

The exercises can be roughly divided into two categories: paradigms and context exercises. Exercises that fall under the category of "paradigm" list the conjugated[48] forms of a verb, verbal auxiliary, or other grammatical element to which the suffix pronouns can be attached (i.e. *ỉw* or a preposition). The context exercises consist of a series of sentences with the same verbal form, occasionally with different conjugations, or phrases with the same construction.

2.1.2.1 Paradigms

The paradigms all revolve around the suffix pronoun. There are two key characteristics: the order of the suffix pronouns and the form to which the suffix pronoun is attached. Due to the analytical nature of demotic, verbal forms typically involve grammatical elements called auxiliaries or converters to which suffix pronouns are attached. The lexical verb itself, which carries the semantic information, is then written in the infinitive or qualitative. For example, the negative aorist *bw-ỉr=f sḏm* is composed of the auxiliary *bw-ỉr*, the suffix pronoun, and then the infinitive (or a form identical to the infinitive). Even forms where the verb itself can be conjugated, periphrastic forms using *ỉr* "to do, make" are not uncommon; e.g. the periphrastic form of the *sḏm=f* was *ỉr=f sḏm*.

All the paradigms follow the same order of pronouns to a more or less extent. The order of pronouns can be reconstructed from P. Vienna D6464. Due to the fragmentary nature of the papyrus no full paradigmatic sequence has survived, but comparisons between two mostly preserved sequences (example 2.1 and 2.2) clearly indicate that the pattern was followed throughout the text.

[48] Here the term "conjugation" does not imply that all instances are finite verbal constructions. It refers both to verbal conjugations and instances where other parts of speech are inflected using the suffix pronouns.

Example 2.1 P. Vienna D6464, Column x+3, 5-11

ỉ.ỉr=y	I (do)
ỉ.ỉr=k	you ([masc. sing.] do)
ỉ.ỉr=f	he (does)
ỉ.ỉr=s	she (does)
ỉ.ỉr=t	you ([fem. sing.] do)
ỉ.ỉr=w	they (do)
ʿỉ.ỉrʾ=[n]	[we] (do)

The beginning of the sequence is fully preserved in a conjugation of the *ỉ.ỉr* auxiliary. This is an instance where the lexical verb is omitted, so the grammatical form as it appears in the paradigm is not complete and could not exist on its own. The verb "to do" has been supplied in the translation simply to indicate how the sequence might be translated if a lexical verb existed. The complete grammatical form would have been *ỉ.ỉr=f sḏm*.

The singular and the plural pronouns are grouped together, but the sequence of person and gender may seem strange to the modern scholar. The paradigm begins with the singular pronouns and all possible singular suffix pronouns that exist in demotic are present. The order is roughly first-second-third, except the second feminine singular comes not after the second masculine singular, but after the third feminine singular (i.e. at the end of the singular chain). This results in the following order: first, second masculine, third masculine, third feminine, and second feminine. Then the plural sequence commences with the third plural, indicating the plural pattern does not parallel the singular.

From a later section of the same papyrus, we find the full plural sequence preserved. The end of the singular sequence and beginning of the plural sequence matches the traces from Example 2.1, indicating that the same format was followed:

Example 2.2 P. Vienna D6464, Column x+4, 1-7

ḥn=k	you (masc. sing.) commanded
ḥn=f	he commanded
ḥn=s	she commanded
ḥn=t	you (fem. sing.) commanded
ḥn=w	they commanded
ḥn=n	we commanded
ḥn=tn	you (pl.) commanded

All plural suffix pronouns in demotic are present in the sequence. Thus the plural sequence is clearly third-first second. Moreover enough of the singular sequence is preserved to show that the second feminine singular truly does follow the third singulars.

Also dating from the Ptolemaic period, an ostracon--O. Ashmolean 726—mostly follows this same pattern. While the text is short, only two columns, and written on an ostracon, it nonetheless has a distinct structure. The first column consists of the active forms of the nominalized relative[49] and the second the passive forms. The passive is expressed using the third person plural (lit.: that which they said), as is typical. The inflected forms for the passive are thus naturally the objects of the preposition *n* "to." While it is possible to interpret Column 2 as active,[50] the parallels in the structure and the logical relationship between the use of suffix pronouns for the subjects in column 1 and the indirect objects in column 2 suggest otherwise. Their juxtaposition shows an awareness of the relationship between active and passive forms.

[49] For the use of *pȝy* in the nominalized relative, see Janet H Johnson, *The Demotic Verbal System*, SAOC 38 (Chicago: Oriental Institute of the University of Chicago, 1976), 118–19.
[50] For example, Johnson translates the second column in the active "what they said to …" in Janet H. Johnson, "Ancient Egyptian Linguistics," in *History of Linguistics. Volume I: The Eastern Traditions of Linguistics*, ed. Giulio Lepschy (London: Longman, 1994), 66. Uljas on the other hand implies that he understands the second column as passive, see Sami Uljas, "Linguistic Consciousness," ed. Julie Stauder-Porchet, Andreas Stauder, and Willeke Wendrich, *UCLA Encyclopedia of Egyptology* (Los Angeles, 2013), 5, http://digital2.library.ucla.edu/viewItem.do?ark=21198/zz002dn8xd.

Example 2.3. O. Ashmolean 726

Column 1	
pȝy-ḏd=y	that which I said
pȝy-ḏd=k	that which you (masc. sing.) said
pȝy-ḏd=f	that which he said
pȝy-ḏd=s	that which she said
pȝy-ḏd=w	that which they said
pȝy-ḏd=n	that which we said
pȝy-ḏd=tn	that which you (pl.) said
Column 2	
pȝy-ḏd=w n=y	that which was said to me
pȝy-ḏd=w n=k	that which was said to you (masc. sing.)
pȝy-ḏd=w n=f	that which was said to him
pȝy-ḏd=w n=s	that which was said to her
pȝy-ḏd=w n=w	that which was said to them
pȝy-ḏd=w n=n	that which was said to us
pȝy-ḏd=w n=tn	that which was said to you (pl.)

The two columns of relatives follow the expected pattern of personal pronouns. The only pronoun omitted is the second feminine singular. While the second feminine singular may be less common than, say, the third masculine singular, it is nonetheless well attested in both documentary and literary texts.[51] Its omission in O. Ashmolean 726 may be a mistake, but it may also reflect that a secondary model for the suffix pronouns was in use.

The previous two examples date to the Ptolemaic period, but the sequence continued to be used into the Roman period. The final example showing this sequence comes from the second century CE:

[51] E.g. women are not infrequently addressed in the second person in documents from Soknopaiu Nesos, Sandra Luisa Lippert and Maren Schentuleit, *Urkunden*, Demotische Dokumente aus Dime 3 (Wiesbaden: Harrassowitz, 2010), no. 29. More generally, see Maren Schentuleit, "Nicht ohne Vormund? Frauen in römerzeitlichen bilinguen Urkunden aus Soknopaiu Nesos," in *"... vor dem Papyrus sind alle Gleich!" : papyrologische Beiträge zu Ehren von Bärbel Kramer*, ed. Bärbel Kramer and Raimar Eberhard, Archiv für Papyrusforschung und verwandte Gebiete, Beiheft 27 (Berlin: Walter de Gruyter, 2009).

Example 2.4 P. Carlsberg 12, Column x+2b, x+13-16

ṯ ṯ=y	take, I took
ṯ=k ṯ=ˈfˀ	you (masc. sing.) took, he took
ṯ=s ṯ=t	she took, you (fem. sing.) took
ṯ=w ṯ=n	they took, we took

Here again, the full singular sequence including the second feminine singular occurs. Interestingly, each entry does not occupy a separate line, as seen in the previous examples; rather two entries occur per line with no space or dividing mark to separate them. Missing is the expected last entry, the second plural, which was either omitted (presumably accidentally) or continued at the now lost top of the subsequent column. The traces at the bottom of Fragment A from P. Carlsberg 12 indicate that a conjugation of *pḥ* "to reach, arrive" originally stood there and at the end of the conjugation is the expected second plural. This is therefore not likely to represent an alternate model in which the second plural is regularly omitted.

Noteworthy about Ex. 2.4 is that the infinitive *ṯ* "to take" occurs at the beginning of the paradigm, apparently acting as a heading.[52] This likely also appears in the fragmentary *pḥ* paradigm on the same papyrus (P. Carlsberg 12, frag. a, x+1, 1). The infinitive as heading is attested in P Wien D6464 too. The *sḏm=f* paradigm for *rḫ*, of which only the first singular and second masculine singular remain, begins with the bare form *rḫ* (P. Vienna D6464 x+4, 8). Neither paradigms for auxiliaries (see Ex. 2.1) nor for relatives (see Ex. 2.3) have any bare grammatical form as a heading. The phenomenon is restricted to the *sḏm=f* paradigms.

[52] The other possibility is that this bare form of the verb is actually a *sḏm=f* in the first person singular, i.e. ṯ written for *ṯ=y*. Johnson notes "in early Demotic, through the reigns of the first two Ptolemies, 1.s. *y* was usually not wirtten (as in Old Egyptian)," see Johnson, *'Onchsheshonqy*, 20. The problem with that interpretation is that the date of these text is much later than early Demotic. For the interpretation of this bare form as an infinitive, see Johnson, "Ancient Egyptian Linguistics," 65.

For whatever reason, Egyptian scribes saw no need to arrange person in a consistent manner. Potentially, the singular order might have been driven by a desire to group pronouns by gender. The first singular is used for both masculine and feminine, but for the second and third singulars, which distinguish gender, the masculine forms are listed together and the feminine forms together. Regardless of what might appear inconsistent within the sequence to modern scholars of language, the sequence itself was remarkably stable. Thus the complete fixed sequence is: first singular, second masculine singular, third masculine singular, third feminine singular, second feminine singular, third plural, first plural, and second plural (*y, k, f, s, t, w, n, tn*).

An abbreviated version of the sequence in a slightly different context occurs in Bod. Eg. Insc. 683. Here four potential options are given within a single sentence. This exercise is a mix between a paradigm and a context exercise.[53]

Example 2.5, Bod. Eg. Insc. 683

ḏd n t3 ḥ3t-sp	Said in the regnal year
nt ỉw=f m-b3ḥ	in which he is before
nt ỉw=s m-b3ḥ	in which she is before
nt ỉw=n m-b3ḥ	in which we are before
nt ỉw=w m-b3ḥ	in which they are before
p3y=y ḥry	my lord

Only the third person singular pronouns and the first and third plural pronouns are included in this exercises, yet they still follow the pattern. This integration of a partial paradigm into a larger semantic unit is currently unparalleled, but it suggests that there may have been other such examples that bridged the gap between the contextless

[53] In fact Depauw identifies this as a school exercise based off of a model letter, see Mark Depauw, *The Demotic Letter: A Study of Epistolographic Scribal Traditions against their Intra- and Intercultural Background*, Demotische Studien 14 (Sommerhausen: Gisela Zauzich Verlag, 2006), 316.

paradigms of the above examples and the subsequent examples of grammatical forms in context exercises.

Thus, there was clearly a preferred pattern for paradigms among Egyptian scribes. This preference is attested for the entirety of the Greco-Roman period, from the Ptolemaic (Ex. 2.3) through the second century (Ex. 2.4). The vocabulary of the paradigms is typical of everyday administrative, legal and personal documents. In particular, verbs such as *ḏd* "to say" or *ṯ* "to take" are some of the most common verbs in demotic. All forms that occur in the paradgims are also quite common and all are real grammatical forms,[54] although not always complete (such as in Ex. 2.1 which only lists the auxiliary, not the complete form with the infinitive). A potential explanation for the variation in O. Ashmolean 726 is that a local model existed in which the second feminine singular was not included.

2.1.2.1 Context Exercises

Context exercises occur both on their own and in conjunction with texts that contain paradigms. Both P Vienna D6464 and P. Carlsberg 12 include not just the basic *sḏm.f* paradigm of verbs, but follow the conjugation of those verbs with different types of context exercises.

Example 2.6 P. Vienna D6464, x+5

wḏꜣ=t	you (fem. sing.) are sound
wḏꜣ=w	they are sound
wḏꜣ=n	we are sound
wḏꜣ=tn	you (pl.) are sound
wḏꜣ pꜣ […]	the […] is sound
wḏꜣ pꜣy=f […]	his […] is sound

[54] Greek grammatical exercises occasionally have theoretical forms that illustrate how a form was created, but such forms never occurred in regular language use.

In Ex. 2.6 we find the end of the expected conjugation sequence, ending of course with *wḏ͗=tn*, the second plural. It is safe to assume that although the text is broken, the entire paradigm originally stood there. Following *wḏ͗=tn* come two entries that also contain the verb *wḏ͗* "to be sound" in the *sḏm=f*. Although the lines are broken, the definite pronoun *pȝ* and the possessive pronoun *pȝy=f* indicate that the now lost subject was a noun. In other words, the paradigm exercise is immediately followed by a context exercise of the same grammatical form in which the pronominal subjects have been replaced by nominal subjects.

P. Carlsberg 12 demonstrates a similar situation. Traces suggest that a *sḏm=f* paradigm of *pḥ* "to reach, arrive" was originally located at the beginning of this section. The paradigm is then immediately followed by a series of sentences using the first person singular *sḏm=f* of *pḥ* with certain adverbs and prepositional phrases:

Example 2.7 P. Carlsberg 12, frag. a, col. 1, 4-9

ˈpḥ=tnˈ	you (pl.) arrived
pḥ=y r-bw-ˈnȝ.wˈ	I arrived there
pḥ=y r-bw-nȝ[y …]	I arrived here
pḥ=y r ˈḫˈ[n …]	I arrived inside
pḥ=y r ˈbnrˈ[…]	I arrived outside
[pḥ]=y r ˈpȝy=wˈ[…]	I arrived to their

P. Carlsberg 12 also preserves another example of this, but using a more extensive range of grammatical forms. In the column directly after the *sḏm=f* paradigm for *ṯ* "to take" (see Ex. 2.4), sentences with *ṯ* "to take" in the imperative and *sḏm=f* occur:

Example 2.8 P. Carlsberg 12, frag. c, col. 3, 2-12

ˈṯ ṯ=yˈ r ˈḫnˈ	take me inside
ṯ ṯ=y r bnr	take me outside
ṯ ṯ=y [r]-bw-nȝ.w	take me there
ṯ ṯ=y r-bw-nȝy	take me here
ṯ=k ṯ=y ˈrˈ pȝy=w ʿ.wy	you took me to their house
ṯ=k ṯ=y r pȝ mȝ	you took me to the place
ṯ=y ṯ=k r pȝ mȝ	I took you to the place

ṯ=f ṯ=y n-ỉm=w he took me

There are clear parallels between the *pḥ* sentences and the *ṯ* sentences. Both use some of the same adverbs and preposition and although the order is not exactly the same, complementary adverbs (e.g. *r-bw-nꜣ.w* and *r-bw-nꜣy*) are paired together. The phrases in these exercises are quite simple and they employ extremely common words. These types of sentences could occur in practically every genre of demotic text.

More complex vocabulary occurs in the relative exercises that practice noun formation.

Example 2.9 ODK-LS 2, frag. b recto, col. x+1, 1-7

rmṯ n ⸢ry.t⸣	a man of the room
rmṯ rṯ=f	a man of his feet (infantryman)[55]
rmṯ ỉw=f ḥs r pr-ꜥꜣ ꜥ.w.s.	a man who is pleasing to pharaoh, l.p.h.
rmṯ ỉw=f ꜥḥꜥ (n) tꜣ mtr	a man who stands (in) the middle
rmṯ n qnqn	a man of fighting
rmṯ ḥ.t-nṯr	a man of the temple
rmṯ rms	a man of the rms-ship

Here various agent nouns are formed through the two most common patterns: virtual relative (*rmṯ ỉw=f)* and genitive (either direct or indirect).[56] Terms such as *rmṯ (n) qnqn* "fighting man"[57] and *rmṯ (n) rṯ=f* "infantryman"[58] are quite common. Others, such as *rmṯ ỉw=f ḥs r pr-ꜥꜣ ꜥ.w.s* and *rmṯ ỉw=f ꜥḥꜥ (n) tꜣ mtr*, are otherwise unattested.[59] As for *rmṯ rms*, the compound is not attested, but *rms* "ship" is common in literary texts.[60] Yet despite the obscurity of some of these entries, the exercise as a whole seems geared

[55] CDD R, 79.
[56] For many more examples of compound nouns of these types, see CDD R, 40-41 for *rmṯ* plus virtual relative and CDD R, 43-46 for *rmṯ* in a genitive construction.
[57] CDD Q, 53.
[58] CDD R, 45.
[59] Although *rmṯ ỉw=f ꜥḥꜥ (n) tꜣ mtr* is fairly close to the attested *rmṯ ỉw=f ꜥḥꜥ m-bꜣḥ pr-ꜥꜣ* "man who stands in the presence of Pharaoh", see CDD R, 41.
[60] E.g. Setne I, 3/28; Inaros, Contest for the Benefice of Amun, 9/14, 9/15, 14/11, 14/19, etc.; London-Leiden Magical Papyrus, 6/31. CDD R 36.

towards documentary texts which are often concerned with correctly identifying individuals, a goal for which agent nouns are rather useful. This is further supported by the verso of ODK-LS 2, frag. b. The writing on the verso is poorly preserved, but it is clear that it was also a writing exercise of some kind, with two irregular columns separated by a curving line. In the second line of the first column, the term *ḫrw-bꜣk* is written three times, presumably to practice its orthography, which is complex. The term means "plea, petition,"[61] but it is also the customary address for letters in early demotic.[62] Similarly, an oversized *ḥꜣt-sp* "regnal year" is written in line 6 of the same column. Such an oversized *ḥꜣt-sp* is the characteristic beginning to a legal document.

More complex exercises involving different elements of demotic grammar can be seen in other context exercises. An ostracon from a private collection consists of an exercise on the imperative. However, rather than use the regular imperative or *my* plus the infinitive for the optative, the exercise uses *ỉr* periphrastically. The imperative is thus created from the imperative form of *ỉr,* which is *ỉ.ỉry* (a version of the participle *r-ỉry*),[63] plus the infinitive. The construction is probably a factor of its date in the Roman Period,[64] as periphrastic constructions are more common in later demotic.

Example 2.10, O. Private Collection, x+4-6

ꜥỉ⸢.ỉry hb ꜥl.[t …]	send papyrus rolls…
ꜥỉ⸢.ỉry hb ꜥl[.t …]	send papyrus rolls…
[ỉ.ỉr]y hb ⸢ꜥ⸣[l.t …]	send papyrus rolls…

Three fragments from the Michaelidis papyri preserve sentences beginning with the particle *tw=s*. Not a single line from any of the fragments is completely preserved,

[61] CDD Ḫ, 135.
[62] Depauw, *The Demotic Letter*, 127–29.
[63] Johnson, *The Demotic Verbal System*, 20.
[64] Angiolo Menchetti, "Un esercizio scolastico in demotico," *Egitto e Vicino Oriente* 30 (2007): 189–90.

which prevents a clear grammatical analysis. Nevertheless, enough is preserved to illustrate some possible distinctive uses of the particle, which seems to be the focus of this fragment and another (P. BM 10856.2 A):

Example 2.11 P. BM 10856.2 B (=Bresciani 2D), x+2-4:

tw=s skr pꜣ nb […]	Look, the lord sails
tw=s ỉw=y šn=k […	Look, I will ask you […]
*ʳtw=s ỉw=y šn*ʾ*[…*	Look, I will ask […]

The most complex content exercises are two longer texts from Berlin. The first, O. Berlin 12902, is an ostracon with sentences in the negative past.

Example 2.12 O. Berlin 12902, 1-6

*bn-pw ḥntws nhy(?) bn-*ʳ*pw*ʾ *ḥf ꜥrꜥr r glsṯ (?) bn-pw ḫe.t | ỉy n=y ỉw=s ḫty.w bn-pw nꜣ nt sgr pḥ bn-pw nꜣ wḥe.w mn r … | bn-pw nꜣ grg.w grg bn-pw<=y> gm {s} ḫm-ḫl ỉw=f ms wꜥṯ=f | bn-pw=*ʳ*y*ʾ *gm ḥtr ỉw=f hy.w bn-pw=*ʳ*y*ʾ *gm ꜥ ỉw=f grᶜ bn-pw<=y> gm ỉrt bn-pw=*ʳ*y*ʾ *gm ḥtr ỉw=f hy.w bn-pw=*ʳ*y*ʾ *gm ꜥ ỉw=f grᶜ bn-pw<=y> gm ỉrt | ḫr twe ꜥm m-sꜣ mnỉ tp-n-*ʳ*ỉꜣ*ʾ*wt*[65] *bn-pw=y gm wnm ḫr twe | wyᶜ bn-pw=y gm šp n ḫn bn.t ꜣtlg …*

> The lizard did not <climb on> the sycamore. The snake did not rise up to the (?). The crew did not come to me, while it was going downstream. Those who were sailing did not arrive. The fishermen did not land at … . The hunters did not hunt; I did not find a boy who goes alone. I did not find a horse who had fallen; I did not find a donkey who was lamed; I did not find milk with a shepherd, except for a herder of small cattle; I did not find food with a farmer; I did not find a cucumber inside an ꜣtlg-date palm.

The paleography of the ostracon is difficult and particularly in the first few lines, some words are difficult to understand. After line 6, the text unfortunately becomes nearly incomprehensible. Yet the grammatical pattern of the first six lines is clear. Each sentence is constructed with the negative past *bn-pw*; furthermore, the first several sentences involve noun subjects and the later sentences use the first person singular.

[65] See CDD M 96

Some sentences are simple clauses; others involve dependent and relative clauses. An exercise such as this is an extension of the simpler, stichic context exercises from Ex. 2.7-2.11. The vocabulary here, despite the difficulties of paleography and orthography for the modern editor, is still relative common. While generally the text seems to be an exercise, given the repetition of *bn-pw* and the fact that the content does not seem to match any other genre of text, a strange sentence occurs towards the end of the text. In lines 8-9, what appears to be an appeal of some kind occurs: *st3 ṯ.k r-ḥr=y pȝy<=y> nb ʿȝʾ* "Return to me, oh my great lord!" Quack has suggested that this appeal almost sounds like a religious petition to a diety.[66] In all likelihood, the badly preserved end of the text simply consisted of another kind of writing exercise, but the possibility exists that the entire text may have been an appeal of some kind or even a literary text.

A comparison with the other long context exercise, P. Berlin 13639,[67] however, supports its interpretation as a grammatical exercise. Although considerably longer in length (34 lines), the papyrus shares many similarities with the O. Berlin 12902 in terms of content and structure:

[66] Joachim Friedrich Quack, *Einführung in die altägyptische Literaturgeschichte III: Die demotische und gräko-ägyptische Literatur*, Einführung und Quellentexte zur Ägyptologie 3 (Münster: Lit Verlag, 2005), 167–68.
[67] See also the important corrections in Karl-Th. Zauzich, "Demotische Musterbriefe," in *Acts of the Seventh International Conference of Demotic Studies, Copenhagen, 23-27 August 1999*, ed. Kim Ryholt, CNI Publications 27 (Copenhagen: Museum Tusculanum Press, 2002), 395–401.

Example 2.13 P. Berlin 13639, 1-4

> *my stmy(=w) tȝ ḫ mt.t | my skȝ=w nȝ ȝḥ.w pr-ꜥȝ nt ỉw ỉ-ỉr-ḥr=k | my ḥn=w s pȝ … nt ỉw ṯ ḫrš r-tbȝ=w | my ḥn=w s n=f r-tbȝ.ṯ=y ḥꜥ=y*
>
> Let (them) hear the circumstances. Let them plow the fields of pharaoh which are before you. Let them command it to the … which take *ḫrš* for them. Let them command it to him because of me myself.

In contrast to O. Berlin 12902, the above example is stichic like most of the other grammatical exercises. Occasionally long sentences extend into a second line, e.g. line 6-7, 15-16, and 24-26, but generally one sentence occupies each line. The grammatical form under consideration is the optative *my sḏm=f*. The vast majority of the sentences have the third person plural suffix attached to the infinitival base. It is unclear whether this use of the third plural should be interpreted as active or passive (see Ex. 2.3). Despite the varied semantic content of the sentences, there seems to be little connection between each line. Instead, the purpose is clearly to practice the optative with a variety of subordinate clauses. As with the previous exercises, the syntax, vocabulary, and semantic content could plausibly belong to an administrative text, rather than religious or literary texts.

2.1.3 Development

The exercises span a period of approximately eight centuries, from the late sixth century BCE through the second century CE. Moreover, the earliest attested example in this study—the still unpublished wooden tablet Louvre E9846, which contains an exercise on the relative—has clear parallels to an unpublished Tebtunis papyrus from the

Ptolemaic period.[68] Although only a few examples exist, the largely standardized sequence of suffix pronouns and the other structural parallels between different manuscripts speak for a tradition of grammatical exercises that spans these centuries. The slight variations in the paradigms can likely be attributed as local models, for which the evidence is too scare to link to a particular site or sites.

Yet the Late Period is likely not when grammatical exercises became a part of Egyptian scribal culture, because there are potential New Kingdom forerunners. From the Ramesside period, two short paradigms are attested, O. Petrie 28[69] from Deir el-Medina and CG 25227[70] from Abydos. In the former, the particle *ỉw* is conjugated with the suffix pronouns: *ỉw=ỉ, ỉw=f, ỉw=k, ỉw=n, ỉw=w, ỉw=sn, ỉw=t.* The list of pronouns is not complete and contains both the older and the later form of the third person plural. Its use of the *ỉw* particle without a lexical verb or non-verbal predicate is analogous to the paradigm in Ex. 2.1. The list also begins, somewhat inexplicably, with what appears to be a dative *n=k.* In the latter ostracon, the "grammatical exercise" is confined to scribbling in the upper left corner of the ostraca, consisting of a couple of *mtw* and *ỉw* constructions. It is unclear whether or not this short list truly is a "paradigm," since it only includes the second person pronouns and one first, feminine singular (*ỉw=s, mtw=tw, mtw=k, ỉw=tw*). Nonetheless it is frequently cited as a paradigm in current literature on the subject.[71] Neither of these ostraca were written as carefully as the demotic example. CG 25227 in

[68] The papyrus is in Berkeley and will be published by Carolin Arlt. See Carolin Arlt, "A Demotic School Text," in *The Tebtunis Papyri VI*, ed. T. Hickey, A. Verhoogt, and K.-Th. Zauzich (Chicago, forthcoming); Vittmann, "Tablette en bois avec exercice scolaire démotique."
[69] Jaroslav Černý and Alan Gardiner, *Hieratic Ostraca* (Oxford: University Press, 1957).
[70] Georges Daressy, *Ostraca: nos 25001-25385*, Catalogue général des antiquités égyptiennes du Musée du Caire (Cairo: IFAO, 1901), 55–56.
[71] E.g. Johnson, "Ancient Egyptian Linguistics," 70; Uljas, "Linguistic Consciousness," 4.

particular gives the impression of an offhand note, but O. Petrie 28 is hardly more prepossessing.

Just as with their demotic counterparts, these two Ramesside ostraca reflect the everyday language of period. The Abydos ostracon's inclusion of the conjunctive *mtw* form indicates that the language stage was Late Egyptian,[72] as that form does not occur in Middle Egyptian. The *ỉw=* forms are also likely meant to represent Late Egyptian, either as the beginning of the third future or a circumstantialized first present.[73] The inclusion of both forms of the third plural suffix pronoun, the Middle Egyptian *=sn* and the Late Egyptian *=w*, does introduce some ambiguity.

The organization and structure of the demotic grammatical exercises, as well as their Ramesside forbearers, reflect an awareness of subdivisible units in the language. It is important to note that there are no "linguistic" terms that were used by the Egyptians to describe these units. Yet as Johnson has argued, the conjugation of the auxiliaries without a verb "indicates that the scribe recognized the distinction between the two parts of the conjugation pattern and was practicing the abstract combination of auxiliary plus subject, not writing complete grammatical units."[74] Borghouts concurs that this separation of auxiliary from lexical verb, and specially the omission of the lexical verb marks a form of abstraction, stating that its omission "testifies to the awareness of an abstract paradigm by itself."[75] Moreover, the deliberate arrangement in P. Carlsberg 12 of infinitive, *sḏm=f*

[72] Cite Junge grammar here! Borghouts also
[73] Of course, verbal forms with *ỉw=* do exist in Middle Egyptian, e.g. the subject-*sḏm=f* (see James P Allen, *Middle Egyptian: an introduction to the language and culture of hieroglyphs*, 3rd ed. (Cambridge: Cambridge University Press, 2015), 269–70.) or pseudoverbal constructions (see Ibid., 199–204.).
[74] Johnson, "Ancient Egyptian Linguistics," 64.
[75] Borghouts is speaking specifically about the two New Kingdom paradigms. Borghouts, "Indigenous Egyptian Grammar," 7.

paradigm, and verb in context (see Ex. 2.4 and 2.8) shows a clear and complex understanding of how demotic builds verbal clauses.

On a more practical level, the structure of the grammatical exercises may have helped scribes recognize the key elements of a sentence. In this sense they are explicitly and deliberately exercises of the *written* form. Unlike most regular texts that run continuously, the exercises are stichic.[76] Thus the repeated initial element, which in a V-S-O language like Egyptian is the verb or verbal auxiliary, is visually emphasized. The auxiliaries, which are a significant focus in the paradigms, are also visually distinctive and may have helped scribes identify where new sentences and clauses began (much as they do modern students). Even the agent noun exercises, such as in Ex. 2.9, would have helped a scribe learn that *rmṯ* plus a virtual relative or genitive should be understood as a single noun unit. Beyond a "grammatical" understanding of how demotic syntax functioned, the paradigms would have helped scribes identify key grammatical elements and the context exercises would have shown them the types of constructions to expect in a given grammatical situation. In other words, while the organization of the exercises reflects an abstract grammatical system, their use of grammatical building blocks may have had a practical function.

An implicit understanding of the linguistic building blocks of Egyptian may also be attested in New Kingdom scribal practice. Fischer-Elfert in a forthcoming article[77] argues that ostraca with lists of personal names reflect a scribal need to master naming patterns and that they indicate a knowledge of the syntactic elements from which they

[76] With the exception of O. Berlin 12902.
[77] Hans-Werner Fischer-Elfert, "'Namen bilden' (ir.t-rnw). Ein Beitrag zur paradigmatischen Anthroponymie des Neuen Reiches," Forthcoming.

were composed. For example, O. DeM 1410 consists of a list of names whose first element is *šms-, ḥzy-,* or *mꜣꜥ.ty-*; O. DeM 1411 is an ostraca containing a series of names beginning with *nfr-*; and O. DeM 1412 is an ostraca enumerating names beginning with *pꜣ-*.[78] In each of the examples that he cites, the names are listed in a stichic format and the initial element seems to have been the focus of the exercise. This organization shows striking parallels to that of the grammatical exercises, both paradigms and context exercises. Moreover, in the case of O. DeM 1410, there may be no other explanation for its function except as practice for the creation and writing of names because the majority of the names themselves are not attested in contemporaneous Deir el-Medina society. Fischer-Elfert concludes that "letztere Kategorien, nämlich Lexeme und Morpheme, haben sehr wahrscheinlich noch nicht als sprachwissenschaftliche Termini im Sinne einer wohldefinierten Beschreibungssprache existiert, als Konzept oder Kategorie und resultierend aus der Perzeption ihrer voneinander isolierbaren sprachlichen Einheiten dürften sie aber bereits vorhanden gewesen sein."[79]

2.2 Alphabetical Texts

Linked to the phenomenon of grammatical exercises, another system of linguistic organization was employed by Egyptian scribes writing demotic texts: initial sound. The most common text type that employed this form of organization were word lists. Basic lists included entries that all began with same initial sound. Certain texts went a step further and organized sequences of sounds into a set order, i.e. an alphabetical order. As with grammatical exercises, these texts are diverse in content, length, and material. They

[78] Georges Posener, *Catalogue des ostraca hiératiques littéraires de Deir el-Médineh. Tome III, Nos 1267-1675*, Documents de Fouilles 20 (Cairo: IFAO, 1977), pl. 17–18. See also Chapter 4 for a discussion of these texts as school exercises.
[79] Fischer-Elfert, "'Namen bilden.'"

range from simple word lists to more complex texts. But unlike the grammatical exercises, alphabetic texts occur in both demotic and hieratic. In one particular instance, the alphabetic sequence has been used to mark distinct sections in a dramatical papyrus. The other aspect to emphasize is that these texts clearly show a concern for phonetics. Although signs are often repeated, these lists are organized by sound, and only secondarily by sign. The phonetic aspects held primacy over the graphic elements.

The term "alphabetical" is used loosely here. It refers both to lists in which each entry has the same initial sound and to lists and other texts in which the initial sounds of the entries display an alphabetical sequence. Its use does not, however, imply that demotic, or some subset of demotic signs, was a true alphabet, i.e. a script composed of purely phonemic letters.

2.2.1 Textual Corpus

The alphabetical texts are not numerous and all are fragmentary. The texts considered here draw primarily from the list published by Quack[80] and the additional texts noted by Devauchelle.[81] Both of these lists, together totaling 10 texts, concern texts containing some part of the alphabetic sequence. I also consider texts that focus on a single sound, for which there are another 6 texts.

Again the size of the corpus does not allow for much speculation regarding geographic distribution, but texts do come from both the north and the south. Tebtunis and Thebes are represented, as well as Tanis, Saqqara, and Oxyrhynchus. The texts range

[80] Joachim Quack, "Die spätägyptische Alphabetreihenfolge und das 'südsemitische' Alphabet," *LingAeg* 11 (2003): 164–65.
[81] Didier Devauchelle, "L'alphabet des oiseaux," in *A Good Scribe and an Exceedingly Wise Man: Studies in Honour of W.J. Tait*, ed. Aidan Dodson, J. J. Johnston, and W. Monkhouse, GHP Egyptology 21 (London: Golden House Publications, 2014), 61.

in date from just before the Ptolemaic period or its very beginning (fourth century BCE) to the second century CE. The material on which the texts are written is varied. The majority are papyri, but one is a limestone writing board and another is an ostracon. A summary of the texts discussed here, along with date, provenance, and material, can be found in Table 2.3 at the end of the chapter.

As with the grammatical texts, a plurality of alphabetic texts have Tebtunis as their provenance. Five are likely from the Tebtunis temple library (see 2.1.1.1). Two of them are Florence papyri published by Bresciani who links them to Anti's find in the 1930s.[82] The third is the already discussed P. Carlsberg 12 (see 2.1.1.1). For the fourth text, P. Carlsberg 7, its first-second century CE date, hieratic character, and presence in the Carlsberg collection all point to an origin in the temple library.[83] By much the same logic, the fifth text P. Carlsberg 43, a demotic text but also from the second century CE and currently a part of the Copenhagen collection, comes from Tebtunis too.[84] The final text, the demotische Namenbuch, dates much earlier than the others. Paleographically it shows similarities to texts from the late Saite period (29th-30th dynasty), but likely dates from slightly later, fourth century BCE.[85] While one fragment of the Namebuch is from

[82] No. 5 and 8. See Bresciani, "Testi lessicali demotici inediti da Tebtuni presso l'Istituto," 1.
[83] Iversen makes this claim tentatively, but in 1958 much less was known about the temple library and there were questions as to its existence. See Erik Iversen, *Papyrus Carlsberg Nr. VII. Fragments of a Hieroglyphic Dictionary*, Historisk-filologiske Skrifter 3, no. 2 (Copenhagen: Ejnar Munksgaard, 1958), 1. Quack has little doubt about its attribution, stating "Er stammt ebenso wie eine große Masse weiterer hieratischer und demotischer Handschriften aus einem großen Fund im Umkreis des Sobektempels von Tebtynis im Fayum," Quack, "Alphabetreihenfolge," 164.
[84] W. J. Tait, "A Demotic Word-List from Tebtunis: P. Carlsberg 41A," *JEA* 68 (1982): 210. Quack concurs, Quack, "Alphabetreihenfolge," 165.
[85] Bresciani, *Testi Demotici nella Collezione Michaelidis*, 15 argues "Il testo è scritto in caratteri grandi, ben formati, tracciati con un calamo sottile; la scrittura, che, in ultima analisi, daterei all'età tardo-saitica (XXIX-XXX din.), come se lo scolaro avesse davanti un modello appunto di questa età…" Zauzich concurs with her analysis, „Für die Datierung folgt man gern dem Vorschlag von Frau Bresciani…Dem würde ich noch hinzufügen, dass die Schrift sich –wenigstens in den letzten sieben Kolumnen – durch eine Eleganz auszeichnet, wie man sie immer wieder bei Handschriften der 30. Dynastie feststellen kann." K.-Th. Zauzich, "Ein antikes demotisches Namenbuch," in *The Carlsberg Papyri 3: A Miscellany of Demotic*

Copenhagen, suggesting a Tebtunis provenance, the temple library deposit consists of texts from first-second century CE. Thus its provenance is likely Tebtunis generally, but from a different find whose circumstances are unknown.[86]

Two further texts potentially have a provenance in the Fayum, specifically Dime/Soknopaiou Nesos and Pelusium. For the first P. Berlin 23861, little is known about the provenance[87] but Quack suggests "nach Maßgabe der aus derselben Erwerbung stammenden Stücke dürfte es aus dem Fayum, eventuell aus Dime kommen." Yet a provenance of Dime for demotic texts is highly problematic, as a recent article by Stadler has laid out, since most attributions to Dime, like Quack's above, are built on a series of associations with other papyri whose contexts are equally murky.[88] While the Fayum generally and Dime specifically is plausible, it is far certain. For the second Berlin 8278, which was purchased by Brugsch in Giza during the 1890s, internal evidence indicates an origin in the Fayum. Potentially the text was produced in Pelusium on the basis of some toponyms.[89]

Further north, the Sign Papyrus derives from Tanis located in the north eastern Delta. In 1884, William Flinders Petrie was excavating the burned remains of houses

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Texts and Studies, ed. P. J. Frandsen and Kim Ryholt, CNI Publications 22 (Copenhagen: Museum Tusculanum Press, 2000), 33–34.

[86] Quack makes much the same point: "Sie stammt mutmaßlich aus Tebtynis, jedoch nicht aus dem Fundhorizont der römerzeitlichen literarischen Handschriften, sondern aus einem anderen, weniger klaren Komplex." Quack, "Alphabetreihenfolge," 165.

[87] In the original publication, Zauzich merely dates the text to the 1st century CE, but makes no mention of provenance, see K.-Th. Zauzich, "Die Namen der koptischen Zusatzbuchstaben und die erste ägyptische Alphabetübung," *Enchoria* 26 (2000): 155.

[88] Martin Andreas Stadler, "Archaeology of Discourse: the Scribal Tradition in the Roman Fayyum and the House of Life at Dime," in *Soknopaios: the Temple and Worship; Proceedings of the First Round Table of the Centro di Studi Papirologici of Università del Salento, Lecce - October 9th 2013*, ed. Mario Capasso and Paola Davoli (Lecce: Pensa MultiMedia, 2015), 187–232, in particular 196-203.

[89] Francois P. Gaudard, "The Demotic drama of Horus and Seth (P. Berlin 8278a, b, c; 15662; 15677; 15818; 23536; 23537a, b, c, d, e, f, g)" (Ph.D., The University of Chicago, 2005), 16–20.

surrounding the temple at Tanis.[90] Many of papyri uncovered in this excavation was damaged beyond repair from fire and damp, but some papyri like the Sign Papyrus were carbonized and survived. The Sign Papyrus, written in hieroglyphs and hieratic and dating to the Roman period, was discovered House 35 where other religious and legal texts in hieroglyphs, hieratic, and demotic had been stored.[91] The text contains hieroglyphic signs followed by their reading or an explanation in hieratic. Only one section, V, 14-VII, 10, where uniliteral signs are arranged in alphabetic order is considered here. For further discussion of the Tanis find and the Sign Papyrus, see chapter 4.

Saqqara has produced the second highest number of texts, after Tebtunis. Two texts—DO Saqqara 19[92] and P. Saqqara dem. 27[93]--were excavated as part of the Egypt Exploration Society's work at the Sacred Animal Necropolis at Saqqara. The necropolis consists of complexes and temples dedicated to baboons, falcons, and the mothers of the Apis, along with catacombs for their burial. The former text was found in the northern second of the Main Temple Compound, while the latter was discovered in a trash heap along with other papyri at the entrance to the Catacomb of the Mothers of Apis.[94] The last text—CG 31169—was discovered in the grave of Ptahhotep at Saqqara.[95]

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[90] F. Ll. Griffith and William Flinders Petrie, *Two hieroglyphic papyri from Tanis*, Memoir of the Egypt Exploration Fund 9 (London: Trübner & Co., 1889), 1–2.
[91] Ibid., 2–3.
[92] John Ray, *Demotic Ostraca and Other Inscriptions from the Sacred Animal Necropolis, North Saqqara*, Texts from the Excavations 16 (London: Egypt Exploration Society, 2013), 86–91.
[93] H. S. Smith and W. J. Tait, *Saqqâra demotic papyri*, Texts from Excavations 7 (London: Egypt Exploration Society, 1983), 198–213.
[94] Ray, *Demotic Ostraca*, 86; Smith and Tait, *Saqqâra demotic papyri,* ix.
[95] Wilhelm Spiegelberg, *Die demotischen Denkmäler (30601–31270; 50001–50022). II. Die demotischen Papyrus*, Catalogue général des antiquités égyptiennes du Musée du Caire, 28,2 (Strassburg: Buchdruckerei M. Dumont Schauberg, 1908), 270.

Only one text is from the Thebes. The demotic ostracon DeM 4-2 comes from a large find of demotic ostraca found north-east of the temple at Deir el-Medina by the IFAO excavation in 1946.[96] One still unpublished text is included in corpus. According to Quack, who did publish a photograph and brief description in an article on lists,[97] the papyrus comes from Oxyrhynchus and dates to the Roman Period. The last two texts belonging to the corpus, P. Heidelberg 295 and P. Berlin 15709, have no provenance.

2.2.2.1 Initial sound

The simplest form in which phonetic properties of words were used as an organizational method is the assembly of words beginning with the same initial sound. All texts with this feature are word-lists and are written in demotic.

At a basic level, nothing other than the initial sound linked words that appear together in a word list. In the following example, a semantically and graphically diverse set of words are listed together:

Example 2.14. P. Carlsberg 12, frag. C, 2, 1-12

ḏyʿtʾ	olive tree
ḏ3ḏy	enemy
ḏnḥ	wing/arm
ḏllḥ	reduction/humiliation[98]
t-nw(?)	?
t-3my.t	maturity/adulthood[99]
ḏwy(.t)	theft[100]
ḏw3	evil
ḏlp	stumble

[96] Devauchelle, "L'alphabet des oiseaux," 57; Bernard Bruyère, *Rapport sur les fouilles de Deir el Médineh, (années 1945-1946 et 1946-1947)*, FIFAO 21 (Cairo: IFAO, 1952), 55.
[97] Joachim Friedrich Quack, "Ägyptische Listen und ihre Expansion in Unterricht und Repräsentation," in *Die Liste: Ordnungen von Dingen und Menschen in Ägypten*, ed. Susanne Deicher and Erik Maroko, Ancient Egyptian Design, Contemporary Design History and Anthropology of Design 1 (Berlin: Kulturverlag Kadmos, 2015), 65, Abb. 10.
[98] CDD Ḏ 78
[99] See CDD 3 29
[100] Presumably this is the noun ḏwy.t (CDD Ḏ 24) not the verb ḏwy (CDD Ḏ 23).

ʿḏ'p	goose?[101]
ṯbȝ	vessel
ḏʿny	Tanis

In the excerpt above, the majority of the words begin with consonant ḏ, but do not appear otherwise linked by semantic field, determinative, or other graphic similarity. The sole method of organization here is the initial sound. However words beginning with ṯ (e.g. *ṯ-ȝmy.t*) and ṯ (e.g. *ṯbȝ*) are also included. This orthographic variety, and the conservative and somewhat idiosyncratic method of demotic transcription, likely hides the fact that the initial sound in each of these words was identical. The Coptic successors for these words bear this out. The demotic sign ḏ was typically rendered ⲥ[102] in Coptic: e.g. *ḏbḏy* became ⲥⲁⲥⲟ,[103] *ḏnḥ* became ⲥⲛⲁϩ,[104] and *ḏlḥ* became ⲥⲗⲁϩ. The initial sound of both *ṯ-nw(?) and ṯ-ȝmy.t* was likely identical to ⲥ, as the initial element to both words was *ṯ* "to take," which became ⲥⲓ.[105] The variety of signs used for the initial sounds in this list illustrate that the true principle behind its organization was phonetic, not graphic.

Moreover, this section of P. Carlsberg 12 directly precedes the *ṯ sḏm=f* paradigm (see Ex. 2.4). The presence of both a grammatical exercise and an alphabetic list in the same manuscript shows that Egyptian scribes themselves considered the two types of texts as related, most likely because they were used in a similar context (i.e. scribal education). The link between this word list and the subsequent paradigm may have been even stronger than a simple shared function. The *ṯ sḏm=f* paradigm itself may have been

[101] CDD Ḏ 35.
[102] In terms of phonemes, the *ḏ* is a palatized stop, likely the unaspirated counterpart to *ṯ*, although this is still a matter of debate. See the discussion on t/ṯ/d/ḏ in James P. Allen, *The Ancient Egyptian Language: An Historical Study* (Cambridge: Cambridge University Press, 2013), 79–82.
[103] Crum 799b, Černy, CED, 323.
[104] Crum 777a, Černy, CED, 317.
[105] Crum 747b, Černy, CED, 308.

intended as part of the *ḏ* list,[106] because *ṯ* (Coptic ⲧ) also has the same initial sound as the other entries. At a minimum, the list would have provided a rather clever segue into the paradigm.

An instance where etymologically linked words form a subgroup within an alphabetic list is attested on the verso of P. gr. Heidelberg 295:

Example 2.15, P. Gr. Heidelberg 295, 3-6

ḥtꜣ	horse
ḥtr	horse
ḥtr-tꜣ	?
ḥtr	tax
ḥtỿ	tax

The fragment is poorly preserved and the entries in the rest of the text difficult to make out,[107] but they are all clearly words beginning with *ḥ*. The example above shows two spellings of the same word "horse", the first reflecting the likely contemporaneous pronunciation without the final "*r*" and the second reflecting the historical spelling.[108] The word *ḥtr-tꜣ* is unknown to me.[109] The next two words appear to be variant spellings of the word "tax, fee,"[110] with the older form apparently written first.

In DO Saqqara 19, we find a personal name list in which each name begins with *h*:

[106] In fact, one could even speculate the initial infinitive ṯ functions as an entry in the list itself. The problem with such an interpretation is that the other *sḏm=f* paradigms beginning with an infinitive do not appear to follow an alphabetically organized word-list.
[107] Kaplony-Heckel suggests that all these words were derived from the root ḥ-t-r, and "vielleicht ist sich der Ägypter damals schon bewußt, dass die Wörter zur selben Wortfamilie gehören. Dann könnten wir vom Ansatz zu einem etymologischen Wörterbuch reden," Kaplony-Heckel, "Schüler und Schulwesen in der agyptischen Spätzeit," 234. As I have difficulty making out the words at the top of the text and the bottom, I would hesitate to call the text "etymological dictionary."
[108] See CDD Ḥ 291 and 311.
[109] So also Spiegelberg, *Demotica I*, 25.
[110] CDD Ḥ 319.

Example 2.16, DO Saqqara recto, I, 1-8

hrỉ-ỉy
hrỉ=s-n=f
hrw-nfr
hmhm
hnyỉ (?)
hn-ỉtt
hn=w-kk
hrỉ-mn

The initial column given above is followed by a second, broken column from which only the first sign *h* of each entry is preserved. Thus the exercise would have consisted of at least two columns, each likely more than ten lines long. Originally the limestone writing board may have been considerably longer. Lists of personal names are closely linked to writing exercises displaying various forms of organization. The choice of names beginning with *h* may reflect the fact that *h* is the first letter of the alphabet (see below). The alphabetical sequence continues *h-l/r-m*, and so the first several lines might suggest that a secondary level of organization, given the arrangement of *h*+*r* followed by *h*+*m*. But the return to names beginning with *hrỉ* at the end of the example belies this.[111]

From the above examples, it is clear that the organizational principle governing such lists was phonetic. The inclusion of graphic variants even when certain signs are typically associated with another related phonetic value demonstrates that graphic elements were not the focus. Moreover, the phonetic arrangement appears to have only extended as far as the initial sound and not beyond. This phonetic arrangement could occur in lists where entries were diverse or in lists where all entries belonged to a certain semantic field or type of word (i.e. personal names).

[111] Ray, *Demotic Ostraca*, 90.

2.2.2.2 Alphabetical order

In his *Moralia,* Plutarch wrote that "'Hermes,' said Hermeias, 'was, we are told, the god who first invented writing in Egypt. Hence the Egyptians write the first of their letters with an ibis, the bird that belongs to Hermes, although in my opinion they err in giving precedence among the letters to one that is inarticulate and voiceless."[112] Here Plutarch is referring to the Egyptian word *hb* "ibis" and its initial consonant *h*, which was in fact in an ἀναύδῳ καὶ ἀφθόγγῳ consonant in Greek.[113] And the consonant *h* does begin the halaḥam alphabetic sequence that we find in Egyptians texts.

The alphabet is called halaḥam after the initial four letters of the alphabet. Variations of the alphabet are known from south-arabian documents dating to the first millennium BCE, a tablet discovered at Beth Shemesh in Palestine dating to the 14th/13th century BCE, and a tablet excavated at Ugarit. [114] The south-arabian alphabetic sequence is as follows:

h l ḥ m q w s^2 r b t s^1 k n ḫ ṣ s^3 p ʾ ʿ ḏ g d ġ ṭ z ḏ y ṯ ẓ

---

[112] καὶ ὁ Ἑρμείας 'Ἑρμῆς' ἔφη 'λέγεται θεῶν ἐν Αἰγύπτῳ γράμματα πρῶτος εὑρεῖν: διὸ καὶ τὸ τῶν γραμμάτων Αἰγύπτιοι πρῶτον ἶβιν γράφουσιν, ὡς Ἑρμεῖ 4 προσήκουσαν, οὐκ ὀρθῶς κατά γε τὴν ἐμὴν δόξαν, ἀναύδῳ καὶ ἀφθόγγῳ προεδρίαν ἐν γράμμασιν ἀποδόντες. Ἑρμεῖ 5 δὲ μάλιστα τῶν ἀριθμῶν ἡ '. Plutarch, *Quaestiones convivales* 9.3.2. Translation from Edwin L. Minar, *Plutarch's Moralia. 9. 697C-771E*, Loeb Classical Library 425 (London: Heinemann, 1961), 235.

[113] Zauzich, "Die Namen der koptischen Zusatzbuchstaben," 152. For the Egyptians, *h* is a pharyngeal frictive in all likelihood. See Allen, *The Ancient Egyptian Language: An Historical Study*, 72.

[114] A. K. Irvine and A. F. L. Beeston, "New Evidence on the Qatabanian Letter Order," *Proceedings of the Seminar for Arabian Studies* 18 (1988): 35–38; A.G. Lundin, "L'abécédaire de Beth Shemesh," *Le Muséon* 100 (1987): 243–50; Pierre Bordreuil and Dennis Pardee, "Un abécédaire du type sud-sémitique découvert en 1988 dans les fouilles archéologiques françaises de Ras Shamra-Ougarit (information)," *Comptes-rendus des séances de l'année... - Académie des inscriptions et belles-lettres* 139, no. 3 (1995): 855–60, doi:10.3406/crai.1995.15526; Manfried Dietrich and Oswald Loretz, "The Ugarit Script," in *Handbook of Ugaritic Studies*, ed. Wilfred G. E. Watson and Nicolas Wyatt (BRILL, 1999), 81–90; Chr. J. Robin, "La lecture et l'interprétaion de l'abécédaire Ra's Shamra 88.2215. La preuve par l'Arabie?," in *D'Ougarit à Jérusalem. Recueil d'études épigraphiques et archéologiques offert à Pierre Bordreuil*, ed. C. Roche, Orient et Méditerranée 2 (Paris: De Boccard, 2008), 233–44.

The establishment of the Egyptian alphabetical sequence has been the focus of much research since its existence was first postulated by Jochem Kahl.[115] Naturally the sounds represented in the south-arabian documents and in other languages throughout the Near East do not map exactly onto Egyptian, so differences in total length and individual sounds occur. The Egyptian evidence is all fragmentary and no single document preserves the entire sequence. The reconstruction of Egyptian order has mainly been the work of Quack, who proposes the following sequence:

h r ḥ (m) q w s r b (t) š/ḫ (m) k n ḫ ḏ/ṯ p (ỉ) ᶜ g ḫ t/d ỉ/y f (ḏ) q

The manuscripts are inconsistent regarding the position of certain letters, which is indicated by the repetition of certain letters in the sequence. The *m* appears twice in parentheses because two sequences place the *m* in different places vis-à-vis the preceding and subsequent sounds.[116] I follow Quack in reading the initial *ỉ* in the sequence as a glottal stop and the *ỉ/y* as a semi-vowel. As has already been shown, Egyptian writing and modern transcription occasionally obscure sounds that were realized as distinct in pronunciation. Even taking this into account, the texts do not perfectly adhere to this sequence in every case. There are omissions and occasionally rearrangements of one or two sounds. These divergences should be seen as a reflection of local traditions and the likely existence of multiple models with slight variations. Ultimately, for the purposes of

[115] Jochen Kahl, "Von h bis ḳ. Indizien für eine 'alphabetsiche' Reihenfolge einkonsonantiger Lautwerte in spätzeichlichen Papyri," *GM* 122 (1991): 33–48; Joachim Friedrich Quack, "Ägyptisches und südarabisches Alphabet," *RdÉ* 44 (1993): 141–51; Joachim Quack, "Notwendige Korrekturen," *RdÉ* 45 (1994): 197; Josef Tropper, "Ägyptisches, nordwestsemitisches und altsüdarabisches Alphabet," *Ugarit-Forschungen* 28 (1996): 619–32; Zauzich, "Namenbuch"; Zauzich, "Die Namen der koptischen Zusatzbuchstaben"; Frank Kammerzell, "Die Entstehung der Alphabetreihe: Zum ägyptischen Ursprung der semitischen und westlichen Schriften," in *Hieroglyphen-Alphabete-Schriftreformen: Studien zu Multiliteralismus, Schriftwechsel und Orthographieneuregelungen*, ed. Dörte Borchers, Frank Kammerzell, and Stefan Weninger, Lingua Aegyptia, Studia Monographica 3 (Göttingen: Seminar für Ägyptologie und Koptologie, 2001), 117–58; Quack, "Alphabetreihenfolge."

[116] See below, Ex. 2.?

this discussion, the fact that there is a somewhat stable order and the context in which that order occurs is more important than pinpointing the precise arrangement of the sounds.[117]

Alphabetical arrangement was used in fairly simple scribal exercises. A simple abecedary illustrating a portion of the sequence is attested on a small fragment in the Berlin Museum:[118]

Example 2.17. P. Berlin 23861. x+II, x+1-9; x+III, x+1-6

Column III	Column II
t	*[w]?*
p (?)	*s*
f (f)	*r*
ḏ (ḏ)	*b*
q (?)	*ṯ*
nb (?)	*š*
	k
	n
	ḥ

Each sound in the papyrus is written with the basic uniliteral[119] demotic sign. The focus of the text is clearly to practice the "alphabetic" signs[120] and perhaps their order. The largely lost first column has traces of the end of *pr.t* "winter" in two lines, suggesting that the papyrus originally contained a list of months. Such types of lists are closely

[117] At this point, the order can only be established more securely with new texts.
[118] Zauzich notes that originally there was some doubt about the authenticity of the fragment due to the fact that the last sign in the third column looks suspiciously like the @ symbol. However, Zauzich asserts that he was aware of the piece in the collection before 1980, hence before the @ symbol was in wide use for email, and does not doubt its authenticity at all. Moreover, the sign is plausibly *nb* "gold," see CDD N 57. Zauzich, "Die Namen der koptischen Zusatzbuchstaben," 157.
[119] Some demotic signs are the descendants of hieratic biliteral signs used in the New Kingdom for syllabic writing (see below). But they are nonetheless conceived of as uniliteral in demotic.
[120] Uniliteral signs in demotic are often called "alphabetic." E.g. Johnson, *'Onchsheshonqy*, 2. However, this is simply the colloquial terminology. It neither implies the use of an alphabet proper in demotic nor reflects any kind of intrinsic link between the uniliteral signs and the "alphabetic" sequence.

associated with school exercises[121] and an abecedary of this kind would align nicely with such a context.

Alphabetical sequences also added another layer of complexity to word-lists governed by initial sound. Although poorly preserved and nearly impossible to translate, P. Carlsberg 43 is likely an example of such a word-list, given the stichic arrangement and the order of the initial sounds:

Example 2.18. P. Carlsberg 43, x+1-x+9

wr[...
wr[...
w[...
w[...
sw[...
sy[...
s[...
sy[...
s[...

Little can be said about the semantic content of the text, but enough lines are preserved that the sequence is surely deliberate. Again the governing principle must be sound not sign form, as lines x+1-2 are written with the *wr*-sign and lines x+3-4 with the *w*-sign. Words beginning with *w*- followed by words beginning with *s*- is in keeping with the expected alphabetical sequence.

A more remarkable use of the alphabet occurs in the Sign Papyrus, which consists of tabular pages each containing three columns: a list of hieroglyphs, their corresponding hieratic transcription, and a literal description of the sign also written in hieratic (see chapter 4). The alphabetic portion of the list occupies only 2-3 pages out of over 30.[122]

[121] Kaplony-Heckel, "Schüler und Schulwesen in der agyptischen Spätzeit," 246. See Chapter 3.
[122] Pages VI, 1-VII, 10 are clearly part of the alphabetic sequence. However the last sign on the previous page (V, 14) is too destroyed to read and may in fact be the first letter of the alphabet: h.

Example 2.19. Sign Papyrus, VII, 1-10

The above example shows the beginning of the well preserved hieroglyphic column from page VII of the Sign Papyrus. The use of uniliteral hieroglyphic signs alongside originally biliteral hieroglyphic signs (e.g. *ḫꜣ* and *ḏꜣ*) suggests that those biliteral signs, whose demotic successors functioned uniliterally, were also perceived as such. This is of course precisely how they functioned in the contemporaneous Ptolemaic and Roman temple texts. The order is noteworthy because although most sounds are represented by a single sign, the example above begins with ḫꜣ and ḥ in the position where simply ḥ is expected. The uniliteral ḫ comes several entries later in the expected position. As both ḫꜣ and ḥ were used to write the ḥ sound in the temple inscriptions, both were probably

included as variants. This further suggests an attention on the part of the scribe who compiled the list to both historical spelling and contemporaneous use.

The fact that the Sign Papyrus was written in hieroglyphs and hieratic sets it apart from the demotic examples above. Its length, format and content show that it was the product of an elite scribal environment. Yet this portion of the text displays remarkable similarities to the demotic abecedary in Ex. 2.17. It suggests that the alphabet sequence was embedded in scribal culture at all levels and thus was expressed both in humble school texts and in more complex, elite manuscripts. This is confirmed by the use of the alphabetical sequence in the similar hieroglyphic dictionary, P. Carlsberg 7,[123] in which hieroglyphic signs arranged in alphabetical order are given mythological explanations for their phonetic value.

2.2.2.3 Bird Alphabet

Recalling Plutarch's words that "the Egyptians write the first of their letters with an ibis,"[124] we should not be surprised that the link between the alphabet and bird names is in fact substantiated by the Egyptian evidence. In numerous texts from the Ptolemaic and Roman period, bird names function as names for specific sounds. So the ibis, *hb*, represents the sound *h,* just as in the NATO phonetic alphabet "alpha" stands for *a*, "bravo" for *b*, and "charlie" for *c*. The texts where these bird names act as names for sounds provide further evidence that the alphabetic sequence was employed in a wide range of scribal activities. This bird alphabet occurs both in demotic scribal exercises and in a religious text.

[123] See Chapter 4.
[124] Plutarch, *Quaestiones convivales* 9.3.2. Translation from Minar, *Plutarch's Moralia. 9. 697C-771E*, 235.

The clearest example of the names of birds corresponding to a specific alphabetic order comes from the recently published demotic ostracon from Deir el-Medina. The text lists each bird followed by a number corresponding to its position in the sequence:

Example 2.20. O. dem. DeM 4-2, 1-7

nꜣ ỉpt.w wp-s.t hb 1 r […. 2]	The birds: ibis 1, *r*[…-bird 2]
ḫrt 3 mnw? [4 …5]	*ḫrt*-bird 3, *mnw*?-bird [4 … 5]
wy 6 smn? 7 […8]	*wy*-bird 6, *smn*?-bird 7 [… 8]
bty 9 nꜣ ʾỉʾ[pt.w …]	*bty*-bird 9. The ʾbʾ[irds …]
rte 2 ḫr[t 3…]	*rte*-bird 2, *ḫr[t*-bird 3, …]
ql[…]	*ql*[…-bird…]
l[…]	*l*[…-bird…]

As expected, the sequence begins with *hb* "ibis" and has a total of nine entries before repeating. The entire sequence can be reconstructed as *h-r-ḫ-m-q-w-s-l-b*. This matches perfectly to Quack's sequence with the "m" in the first possible position.[125] The addition of a number after each bird name illustrates that the scribe perceived a fixed order. The content can hardly be explained as anything other than a scribal exercise. Moreover, the handwriting of the text is quite poor and Devauchelle in his publication noted, "on reconaît dans la forme de certains mots les hésitations de l'écolier et des maladresses, voire des erreurs d'écriture."[126] The pairing of a sequence of alphabetical bird-names and a running count of numbers is paralleled by P. Oxyrynchus B.3 6/2. This format might have served scribes as a basic introduction to signs, sounds, and numbers. It also confirms that these sequences were in fact a fixed order.

More complex in structure is P. Saqqara 27. The demotic text alliteratively links birds with trees in one section and birds with place names in the next:

[125] This text was not known to Quack when he published his articles on alphabetic sequence.
[126] Devauchelle, "L'alphabet des oiseaux," 59.

Example 2.21 P. Saqqara 27, 2-3 and 9-10

[2]*…] pꜣ hb ḥr pꜣ hbyn pꜣ rd ḥr pꜣ rr […*
…] ⸢pꜣ⸣ wy ḥr pꜣ wrṯ r pꜣ smn ḥr pꜣ sry […
- - -
[9]*…] … šm n=f mnw r M…[…*
…] r Rb⸢ỉ⸣ šm n=f bnw r B⸢b⸣[l …

[2]…] the ibis is on the ebony tree; the *rd*-bird is on the grape-vine […
…] the *wy*-bird is on the rose; the goose is on the sry-tree […
- - -
[9]…]… the *mnw*-bird went away to M…[…
…] to *Rbỉ*, the bnw-bird went away to Baby[lon …

The bird-tree pairs and the bird-place name pairs largely follow Quack's order, but due to the fragmentary nature it is difficult to locate certain sounds securely in the sequence. The pairing of the birds with trees and places emphasizes the initial sound which is the focus of the exercise. The text may also have functioned as a vocabulary exercise for tree and place names. Although the text is clearly an exercise, the scribal hand is far from the unpracticed forms see in the previous exercise.

Two further texts demonstrate the presence of the bird alphabet in demotic scribal exercises. Both are lists of personal names in demotic: the so-called "demotische Namenbuch" and the verso of a geographic list in Cairo. The "demotische Namenbuch" displays four remarkable features: it is arranged according to initial sound, the sounds are organized according to the halaḥam alphabet, each section begins with a bird name as a heading, and each section ends with the traditional colophonic phrase *iw=s pw nfr* "it is finished perfectly." All four of these features can be seen in the following excerpt:

Example 2.22. Demotische Namenbuch, 152-158 (XV, 2-8)

ỉrỉ-ꜥ-pr
ỉrỉ-ꜥ-pr-ꜥ
ỉw=s pw nfr
ꜥꜥne wp-st
ꜥr-ḥp
ꜥr-ḥp-(r)-mn-nfr
ꜥr-(ḥp-r-)pỉ-ỉny

The example above belongs to the end of the *ỉ* section and the beginning of the ꜥ section. The Namenbuch as a whole preserves the following from the alphabet: *h, […], n, […], p, i, ꜥ, g, ḫ, t.*

The use of phrases to mark the beginning and end of sections reveals a very deliberate structure. While most commonly associated with colophons on literary texts,[127] the phrase *iw=f/s pw nfr* develops a secondary use as a means of separating distinct sections of late period papyri[128] and in other word lists. In the latter case, a notable example comes from P. Carlsberg 23,[129] a Ptolemaic word-list presumably from Tebtunis.[130] The colophon marks the end of a series of job titles and then a new section begins with the heading *nỉ ỉỉwt (n) pr Pr-ꜥ* "the offices of the house of Pharaoh," followed by offices associated with the palace.[131] This use of colophon and heading in P. Carlsberg

[127] E.g. Teachings of Kagemni (P. Prisse, II, 9), Sinuhe (P. Berlin 3022, col. 311), Ptahhotep (P. Prisse, XIX, 9), Teaching of Amenemhet (O. Michaelides 20, P. sallier II, 3,7-8), Khety (OdM 1014, P. Anastasi VII, 7,4), etc.
[128] The simple formula *iw=f pw* "it is finished" separates sections in a similar fashion in P. Bremner-Rhind. For colophons more generally, see Michela Luiselli, "The Colophons as an Indication of the Attitudes towards the Literary Tradition in Egypt and Mesopotamia," in *Basel Egyptology Prize 1: Junior Research in Egyptian History, Archaeology, and Philology*, ed. Susanne Bickel and Antonio Loprieno, Aegyptiaca Helvetica 17 (Basel: Schwabe & Co., 2003), 343–60; Giuseppina Lenzo Marchese, "Les colophons dans la littérature égyptienne," *BIFAO* 104 (2004): 359–76.
[129] TM 46022
[130] The text is in Copenhagen, but like the Namenbuch itself, dates earlier than the temple library. See John Tait, "A Demotic List of Temple and Court Occupations: P. Carlsberg 23," in *Grammata Demotika: Festschrift für Erich Lüddeckens zum 15. Juni 1983*, ed. Heinz Josef Thissen and Karl-Th. Zauzich (Würzburg: Gisela Zauzich Verlag, 1984), 211.
[131] Col. 31, x+8.

23 directly parallels the layout of the Namenbuch. Moreover, the presence of defined opening and closing phrases for such lists suggests they had a set order and number of entries.

On the verso of CG 31169, a similar text containing a list of names beginning with the letter *ỉ* occurs. The recto of the papyrus also contains a list, but of divine names and geographic names.[132] The geographic list consists of toponyms from the Delta, indicating a geographic element to its organization.[133] Its structural format emphasizes formal distinctions between the section, since the geographic portion of CG 31169 ends with the colophon *ỉw(=f) pw nfr* "it is finished perfectly" before the section on divine names begins.

The alphabetic list on the verso shows every indication of being just as meticulously organized as the divine names and toponyms on the recto. As with the Namenbuch, the list is a compilation of personal names in which the first element of each name begins with *ỉ*. Below is an excerpt from each section of the list in the first two columns:[134]

Example 2.23. CG31169 vs., I, 1-3, 12-13; II, 1-3, 9-10, 12

I,1 *ỉbt*
ʾImn-ỉ.ỉr-dỉ=s
ʾImn-pȝy-…
- - -
12 *ʾItm-ỉ.ỉr-dỉ=s*
ʾItm-rḫ=s

[132] There is a second fragment to the text, CG 31168. For CG 31168, see Spiegelberg, *Demotische Denkmäler II*, 266–70.
[133] Georges Daressy, "La liste géographique du Pap. no. 31169 du Caire," *Sphinx* 14 (1911 1910): 155–71; Karl-Th. Zauzich, "Das topographische Onomastikon im P. Kairo 31169," *GM* 99 (1987): 83–91; Françoise de Cenival and Jean Yoyotte, "Le papyrus démotique CG 31169 du musée du Caire (R° x+I,1 - x+IV,9)," in *"Parcourir l'éternité": hommages à Jean Yoyotte*, ed. Christiane Zivie-Coche and Ivan Guermeur, vol. 1, Bibliothèque de l'École des hautes études, sciences religieuses 156 (Turnhout: Brepols, 2012), 239–79.
[134] The third column is badly destroyed. It is clear that the list continues and the names begin with *ỉ*, but complete names are difficult to make out.

- - -
II, 1 *ỉp-wḥm-nfr (?)*
ỉs.t-wḥm-nfr (?)
ỉs.t-ỉ.ỉr-dỉ=s
- - -
9 *ỉ.ỉr=f-ꜥ-n-Ptḥ*
ỉ.ỉr=f-ꜥ-n-ỉmn
- - -
12 *ỉꜥḥ-ỉ.ỉr-dỉ=s*

The list begins with a word that appears to be a heading, similar to how each section of the Namenbuch began with the bird name plus *wp-s.t* "specification, viz.",[135] but here there is no *wp-s.t*. The bird determinative at the end of *ỉbṯ* clearly shows that the word refers to a bird, but *ỉbṯ* is not an attested word in demotic.[136] However, a bird *ỉbỉyt* can be found in the Coffin texts, the Book of the Dead, and a New Kingdom ostraca.[137] If the demotic heading here is a later writing of this same bird, then this list appears to follow the same format as the Namenbuch and may be an excerpt from it.

Beyond scribal exercises, the bird alphabet can be found in a demotic dramatic text. In P. Berlin 8278, a dramatical text on Horus and Seth (originally thought to be a magical text),[138] bird-names are used to mark out each section. The papyrus is extremely fragmentary and only five birds are preserved. The reading of the first bird is unclear, but

[135] CDD W 66.
[136] Zauzich also reads this as a bird ib, Zauzich, "Namenbuch," 30. Gaudard however does not consider P. Cairo 31169 in his article on the bird alphabet, François Gaudard, "Birds in the Ancient Egyptian and Coptic Alphabets," in *Between Heaven and Earth: Birds in Ancient Egypt*, ed. Rozenn Bailleul-LeSuer, OIMP 35 (Chicago: The Oriental Institute of the University of Chicago, 2012), 65–70.
[137] CT 301, 309, 639; BD 76 and 104; and O. Leipzig 12; see Dimitri Meeks, "De quelques 'insectes' égyptiens entre lexique et paléographie," in *Perspectives on Ancient Egypt: Studies in Honor of Edward Brovarski*, Supplément aux Annales du Service des antiquités de l'Egypte 40 (Cairo: Conseil Suprême des Antiquités de l'Egypte, 2010), 274–79.
[138] Gaudard, "The Demotic drama of Horus and Seth (P. Berlin 8278a, b, c; 15662; 15677; 15818; 23536; 23537a, b, c, d, e, f, g)," 10–11.

the subsequent birds—*fy-st*, *ḏḏ*, *mnw*, and *qnw*—are suggestive of the *f-ḏ-q* sequence at the end of Quack's scheme, although *m* is out of place.[139]

2.2.3 Development

Just as the grammatical exercises operated on a principle of divisible grammatical units, so too do the alphabetic texts engage with individual phonetic units. While not frequently attested, enough texts, spanning the fourth century BCE through the second century CE and originating from Thebes to Tanis, have survived to suggest that this approach was widespread throughout Greco-Roman scribal culture. Yet the occasional divergences seen in various texts also indicate that the alphabetical sequence was not completely fixed. Instead, it seems as if different, potentially local traditions existed. These traditions should nonetheless be viewed as well-established given the association of the bird-names and numbers and the use of the bird-names as section dividers in the dramatical papyus.

Within the past year, a new piece of evidence for the alphabetic sequence has come to light: a limestone ostracon no. 99.95.0297, found during the Cambridge Theban Tombs Project excavations in tomb of Senneferi (TT99). The ostracon is a somewhat mysterious list of words and signs, with hieratic words followed by a hieroglyphic-esque sign.[140] Most noteworthy is the fact that the ostracon dates to the New Kingdom, likely the 18th dynasty by both paleography and archaeological context.[141] The reading of the

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[139] François Gaudard, "Le P. Berlin 8278 et ses fragments. Un 'nouveau' texte démotique comprenant des noms de lettres," in *Verba manent. Recueil d'études dédiées à Dimitri Meeks par ses collègues et amis*, ed. Isabelle Régen and Servajean Frédéric, CENiM 2 (Montpellier: Université Paul Valéry, 2009), 165–69.
[140] Ben Haring, "Halaḥam on an Ostraca of the Early New Kingdom?," *JNES* 74 (2015): 189–96.
[141] The ostracon was found in an early 18th dynasty tomb, but in a shaft that was added later, probably Third Intermediate Period. The shafts however were robbed extensively, their contents significantly disturbed and then partially filled in. Therefore, it is likely that the ostracon was moved into the shaft at some point during these disturbances. Ibid., 189.

ostracon, however, is extremely difficult and while Haring suggests that the hieratic words were explanations for the hieroglyphic sign, none of the hieratic words can really be understood. Despite the semantic difficulties, the hieratic palaeography is perfectly clear and the initial signs for the first four lines are indisputably *h-r-ḥ-m*. Thus, the possibility that this ostracon truly was organized according to the halaḥam alphabet certainly exists.

If this text is in fact an example of the halaḥam alphabet, it has significant implications for the various theories about the alphabet's origin and development across the Near East. There are three major theories regarding Egypt's place in the development of the alphabet. The first, put forth by Quack in his original 1993 article and reiterated in his 2003 article, is that the halaḥam alphabet originated in Arabia and came to Egypt through trade via the Red Sea in the first millennium BCE.[142] He argues that the preponderance of south-arabian documents in comparison to the Egyptian or northwest Semitic evidence makes Arabia the most likely place Egyptians would have encountered the alphabet and that the chronology of the documents aligns, as a fourth century BCE date for the Egyptian evidence would postdate the south-arabian material. The second theory, espoused by Josef Tropper, moves back the date of knowledge transfer to the 14th-12th centuries BCE on the basis of Late Bronze Age tablets from Beth Shemesh and Ugarit.[143] Given the close contact between Egypt and Syria-Palestine at this time, Tropper suggests that the alphabet was transferred to Egypt from Syria-Palestine. Quack maintains that is highly unlikely because 1) the Egyptian evidence dates centuries later and 2) if such transfer of knowledge were to have occurred, the Egyptians would have

[142] Quack, "Ägyptisches und südarabisches Alphabet," 141–51; Quack, "Alphabetreihenfolge," 163–84.
[143] Tropper, "Ägyptisches, nordwestsemitisches und altsüdarabisches Alphabet," 619–32.

adopted the far better attested abaga(ḫa)d alphabet.[144] The final theory, suggested by Frank Kammerzell, is that Egypt was the origin for the alphabetic sequence in the early second millennium or even earlier. As Quack has succinctly explained, the major flaw to this theory is that the order of the Egyptian alphabet places sounds not included in the south-arabian at the end. That arrangement suggests that the south-arabian sequence antedates the Egyptian.[145]

A New Kingdom date for the presence of halaḥam in Egypt gives new weight to Tropper's theory, but it does not resolve the problems in the frequency of documentation. In all likelihood, if the halaḥam alphabet was truly present in Egypt during the New Kingdom, then the transmission of ideas about alphabets may have been more complex than any of these theories suggest.[146] A possible explanation for the lack of a clear line of transmission in the written documentation is that the alphabetic sequences may also have belonged to oral tradition, resulting in a path or paths of transmission that would not have been preserved. Regardless of when and where the alphabet might have originated, the Theban ostracon correlates to the other scribal activities of the New Kingdom, namely the phonetic interests of New Kingdom scribes as illustrated by the phenomenon of group writing.

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[144] Quack, "Ägyptisches und südarabisches Alphabet," 177.
[145] If an alphabet moves from culture A to culture B, culture B usually places the sounds which have no parallel in culture A at the end of the sequence. E.g. the adoption of the Greek alphabet in Egypt for Coptic. Quack, "Alphabetreihenfolge," 178.
[146] For a discussion of the complexities of knowledge transfer in the Greco-Roman world, see Friedhelm Hoffmann, "Internationale Wissenschaft im hellenistischen Ägypten," in *Orient und Okzident in hellenistischer Zeit: Beiträge zur Tagung "Orient und Okzident - Antagonismus oder Konstrukt? Machtstrukturen, Ideologien und Kulturtransfer in hellenistischer Zeit", Würzburg 10.-13. April 2008*, ed. Friedhelm Hoffmann and Karin Stella Schmidt (Vaterstetten: Patrick Brose, 2014), 77–112.

Excursus: Group Writing

Group or syllabic writing was a technique for writing foreign loanwords and foreign proper names in New Kingdom texts. The signs used for group writing eventually developed into the uniliteral signs of demotic which in turn became key elements of alphabetic texts (see Ex. 2.17 and 2.19). Tracing the use of this system may reveal how phonetic awareness developed.

The relationship between sign and phonetic value, as seen in the codification of the rebus principle in which phonetic value can be abstracted from ideographic value and a sign can be used for phonetic purposes regardless of semantic environment, is at the heart of the Egyptian writing system. Therefore, built into the development of writing in Egypt is an abstract understanding of the complex relationship between phonetic value, ideographic value, and sign. However, the conventional orthographies for native Egyptian words presented challenges for foreign words. Interaction with foreign languages is attested in the Egyptian script as early as the Old Kingdom, but occurs much more frequently in the New Kingdom.[147] This linguistic interaction in Egyptian texts ranges from spellings of foreign names to loan words to phonetic transcriptions of larger phrases and sentences. The earliest occurrences of foreign names written in Egyptian date to the late Old Kingdom, appear on execration figurines, and typically employ uniliteral, but also occasionally biliteral, signs to spell out the names.[148] A more extensive source of

[147] For an overview of this phenomenon, see Joachim Friedrich Quack, "Egyptian Writing for Non-Egyptian Languages and Vice Versa: A Short Overview," in *The Idea of Writing: Play and Complexity*, ed. Alex de Voogt and Irving Finkel (Leiden: Brill, 2010), 317–26; Joachim Friedrich Quack, "From Group Writing to Word Association: Representation and Integration of Foreign Words in Egyptian Script," in *The Idea of Writing: Play and Complexity*, ed. Alex de Voogt and Irving Finkel (Leiden: Brill, 2010), 73–92.
[148] Abdel Moneim Abu Bakr and Jürgen Osing, "Ächtungstexte aus dem Alten Reich," *MDAIK* 29 (1973): 97–133; Jürgen Osing, "Ächtungstexte aus dem Alten Reich (II)," *Mitteilungen des deutschen archäologischen Instituts Abteilung Kairo* 32 (1976): 133–86; Joachim Friedrich Quack, "Some Old Kingdom Execration Figurines from the Teti Cemetery," *BACE* 13 (2002): 149–60.

foreign names, both personal and geographic, is found in the execration material from the Middle Kingdom.[149] Other attestations occur in monuments,[150] on stelae,[151] and perhaps in literature.[152] Such Middle Kingdom examples employ more or less the same techniques as the Old Kingdom examples, namely the use of uniliteral signs, but occasionally also short Egyptian words.

Yet a marked change in the system for transcribing foreign words occurs in the New Kingdom, when "group-writing" or "syllabic writing" became the typical method and this change should be seen as indicative of a new approach towards the complex relationship between a sign and its phonetic realization. The system essentially uses biliteral signs to represent a CV syllable. As Egyptian does not write vowels, the biliteral signs chosen were ones that ended with an *-ꜣ, -y,* or *–w*. Therefore, the use of e.g. the *bꜣ*-bird sign in a loanword would indicate that the Egyptians perceived the word to contain a consonant with a phonetic value equivalent to Egyptian "b" plus some vowel.

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[149] Kurt Sethe, *Die Ächtung feindlicher Fürsten, Völker und Dinge auf altägyptischen Tongefässcherben des mittleren Reiches, nach den Originalen im Berliner Museum*, Abhandlungen der Deutsche Akademie der Wissenschaften Berlin 5 (Berlin: Verlag der Akademie der Wissenschaften in Kommission bei Walter de Gruyter u. co., 1926); Georges Posener and Baudouin van de Walle, *Princes et pays d'Asie et de Nubie. Textes hiératiques sur des figurines d'envoûtement du moyen empire suivis de remarques paléographiques sur les textes similaires de Berlin, par B. van de Walle.* (Brussels: Fondation égyptologique reine Élisabeth, 1940); Georges Posener, *Cinq figurines d'envoûtement*, BdÉ 101 (Cairo: IFAO, 1987); Yvan Koenig, "Les textes d'envoûtement de Mirgissa," *RdÉ* 41 (1990): 101–25.

[150] Thomas Schneider, *Ausländer in Ägypten während des Mittleren Reiches und der Hyksoszeit, Teil 2: Die ausländische Bevölkerung*, Ägypten und Altes Testament 42 (Wiesbaden: Harrassowitz, 2003), 112–76.

[151] Thomas Schneider, "Die Hundenamen der Stele Antefs II.: Eine neue Deutung," in *Altertum und Mittelmeerraum: Die antike Welt diesseits und jenseits der Levante. Festschrift für Peter W. Haider zum 60. Geburtstag*, ed. Robert Rollinger and Brigitte Truschnegg, Oriens et Occidens 12 (Stuttgart: Franz Steiner Verlag, 2006), 527–36.

[152] Thomas Schneider, "Sinuhes Notiz über die Könige. Syrisch-anatolische Herrschertitel in ägyptischer Überlieferung," *Ägypten und Levante* 12 (2002): 257–72.

While the general outline of the system is not in dispute, the vexing question of vowels seems, at least for the moment, to have eluded scholarly consensus. Both Helck[153] and Schenkel[154] have argued that distinct rules govern the writing of vowels. Schenkel, with whom Helck is partially in agreement, lays out a system by which each sign/sign group can interpreted through one of three principles. The first principle is the "Devanagari principle," which gives the sign a value of consonant plus a/ə/Ø; the second, the "cuneiform principle," assigns a fixed consonant-vocalic value to a sign/sign group; the third, the standard hieroglyphic principle, accounts for circumstances under which a sign simply has a consonantal value. Helck, however, relies heavily on analyzing stressed and unstressed syllables (stating that unstressed syllables can have any vowel), as well as arguing for vowel shifting to account for the apparent mismatch of vowels between Egyptian and cuneiform, particularly in place names.[155] Both of these systems are problematic, Schenkel's due to the fact that the principles do little if anything to narrow down the possible vowels and Helck's due to his misinterpretation of unstressed syllables. In contrast, Edel has argued that group-writing was a non-vocalic system,[156] citing precisely some of the same place names for which Helck saw vowel shifting. More recently, Schneider[157] has concluded that most signs/sign groups do not represent a

[153] Wolfgang Helck, *Die Beziehungen Ägyptens zu Vorderasien im 3. und 2. Jahrtausend* (Wiesbaden: Harrassowitz, 1971), 539–75; Wolfgang Helck, "Grundsätzliches zur sog. 'Syllabischen Schreibung,'" *SAK* 16 (1989): 121–43.
[154] Wolfgang Schenkel, "Syllabische Schreibung," in *Lexikon der Ägyptologie*, ed. Wolfgang Helck and Wolfhart Westendorf, vol. IV (Wiesbaden: Harrassowitz, 1986), 114–22.
[155] Helck, "Grundsätzliches zur sog. 'Syllabischen Schreibung,'" 133–34.
[156] "Ein solches System ist wegen seiner Kompliziertheit aber kaum durchführbar; vor allem aber wird durch solche Umschreibungen nur die Tatsache verschleiert, dass die meisten dieser Gruppen alle drei Vokale *a, i* oder *u* aufweisen können, also vieldeutig sind." Elmar Edel, *Die Ortsnamenlisten aus dem Totentempel Amenophis III.*, Bonner biblische Beiträge 25 (Bonn: Hanstein, 1966), 87.
[157] Thomas Schneider, *Asiatische Personennamen in ägyptischen Quellen des Neuen Reiches*, OBO 114 (Freiburg/Göttingen: Universitätsverlag/Vandenhoeck & Ruprecht, 1992), 401–2.

specific phonetic value through his study of Asiatic New Kingdom personal names. Roughly the same conclusion was also reached by Zeidler[158] through his research on Coptic attestations (and thus Coptic vocalizations) of words written with group-writing.

Research into group-writing has approached the phenomenon from the perspective of the modern researcher who wishes to reconstruct unknown ancient pronunciations. This is to be expected since a reconstruction of the vowels, particularly for the Semitic words and names, allows for proper identification of people and places, as well as the meaning of loanwords, which often have a clear semantic range in the original Semitic language. This was not, however, the perspective of the ancient scribe who originally transcribed a foreign word. Modern scholars' inability to uncover (or agree upon) a system that allows one to work backwards and reconstruct the vocalic lacunae does not mean that development of group-writing by the Egyptian scribes was an unsystematic process or that it yielded them an unsuccessful result. Various explanations could explain the vowel conundrum. For example, the Egyptian purpose for group writing may not have included any great need for clear vocalic fidelity to the word in its original language. Even if group-writing was intended to indicate something of the vocalic color of the syllables, it may reflect a heavily Egyptianized pronunciation of the foreign word, not the original pronunciation, thus stymying modern scholars attempts to match Egyptian orthography with native Semitic orthographies. Ancient scribes may also have had no need to "sound out" the pronunciation from the written word. They may have learned the pronunciation of the majority of foreign words at some point during the

[158] Jürgen Zeidler, "A New Approach to the Late Egyptian 'Syllabic Orthography,'" in *Sesto Congresso internazionale di egittologia: atti*, vol. 2 (Turin: International Association of Egyptologists, 1993), 579–90.

schooling process or through administrative work; all that was necessary was to recognize the word.

If one accepts that the system was systematic and successful, as born out by scribes' widespread adoption of the system in New Kingdom, then one must conclude that either modern scholars have failed to fully understand the vocalic system inherent in group writing or it served another/additional purpose. To this end, perhaps the most noteworthy facet regarding the implementation of group-writing in New Kingdom is the degree to which it visually differentiated a foreign word or name from the body of an Egyptian text. A word spelled with group writing looks starkly different from traditional Middle Kingdom and Old Kingdom orthographies of either native Egyptian words or loanwords. Thus the use of group-writing was a clear visual clue that the word was not etymologically Egyptian. Such meta-linguistic information was absent in the writings of foreign names in earlier period. However, this association does not explain the use of group writing for native Egyptian words, such as *ỉrm* or *r-bnr (r-bal)*, nor does it account for the proliferation of group-writing in the later New Kingdom into the Third Intermediate period and later, as well as its eventually adoption into Demotic as the basic system of alphabetic signs. Thus, the group-writing must also have indicated, at first as an alternative option and later as its main association, to the reader that a word was spelled out in its consonantal entirety and that other principles of Egyptian writing, such as ideograms or multi-literal signs were not in use. This betrays a high level of phonetic awareness and a deliberate concern for signaling phonetic cues in written language. It makes sense that an alphabetical sequence would be adopted while this development was in progress.

2.3 Conclusion

The Greco-Roman period produced remarkable texts displaying distinct forms of linguistic organization. The grammatical texts reveal an awareness of syntactic units and the alphabetic texts an awareness of phonetic units. That these two approaches were complementary is demonstrated by the combination of grammatical exercises and an alphabetic list on P. Carlsberg 12. Both also had potential New Kingdom forerunners, suggesting that this approach was an outgrowth of the scribal culture of that period. For the alphabetical texts, New Kingdom scribes' attention to the problems of writing foreign loanwords in Egyptian scripts likely laid the foundation for the greater attention of phonetic value expressed in the later periods.

Characteristic of both grammatical and alphabetic texts are their use of fixed sequences. While neither the suffix pronouns nor the alphabetic order of sounds appear consistently in all the texts, the disjunctions in the sequences do not invalidate the idea that these ideas were pursued systematically. Both local traditions and the messy role of the individual, particular one who was just learning to write, can explain these variations.

These texts target a basic level of literacy. Most attestations are written in demotic and employ language that could be found in the most prosaic of documents. But this means that their strategies towards the formation of clauses and the encoding of phonetic information form a foundation for both elite and non-elite scribes. The integration of the bird-alphabet into higher register texts, such as scholarly texts and religious texts, show how elite scribes use these techniques in the production and perpetuation of priestly knowledge.

Table 2.2
Egyptian Grammatical Texts 700 BCE-300 CE

Inventory Number/Publication	TM Number	Date	Provenance	Material	Contents
Ashm. Museum 726	99287	Ptolemaic	?	ostracon (potsherd)	relative clauses
BM EA 10856.1 A	641962	Ptolemaic	?	papyrus	negative imperative, *sḏm.f*, future
BM EA 10856.2 A / Bresciani, *Michaelidis,* 2 G	641964	Ptolemaic	?	papyrus	sentences beginning with *tw=s*
BM EA 10856.2 B / Bresciani, *Michaelidis,* 2 D	641961	Ptolemaic	?	papyrus	sentences beginning with *tw=s*
BM EA 10856.3 A / Bresciani, *Michaelidis,* 2 C	97825	Ptolemaic	?	papyrus	preposition *ḥr*
BM EA 10856.3 C / Bresciani, *Michaelidis,* 2 F	641963	Ptolemaic	?	papyrus	negative imperative
Berlin 12902	88979	Late Ptolemaic	?	ostracon (potsherd)	negative past
Berlin 13639	48893	Ptolemaic	?	papyrus	optative (*my sḏm=f*)
Bod. Eg. Inscr. 683	58208	Ptolemaic	?	ostracon (potsherd)	relative clauses
Carlsberg 12	55997	2nd century CE	Tebtunis	papyrus	terminative, adverbs, *sḏm.f*, agent nouns (using the virtual relative)
Carlsberg 454	56116	2nd century CE	Tebtunis	papyrus	nominalized relatives (*nꜣ nty ḥr*)
Florence, PSI inv. without no. / Bresciani, Fs. Lüddeckens, no. 1	56127	Roman	Tebtunis	papyrus	agent nouns (with virtual relative)
Florence, PSI inv. without no. /Bresciani, Fs. Lüddeckens, no. 6	89425	Roman	Tebtunis	papyrus	exercise with verb *mnq* (?)

Hamburg D 33 ro	56076	1-2nd century CE	Fayum?	papyrus	1st present (?)
Karnak ODK-LS 2	55999	Ptolemaic[1]	Karnak, Sacred Lake	ostracon (potsherd)	agent nouns
Leiden dem. 359 (Leiden F 1897/6.267)	49385	Ptolemaic (?)	Thebes	ostracon (potsherd)	direct speech (*ḫr*)
Louvre E9846	N/A	6th century BCE	Thebes (?)	wood (tablet)	agent nouns
Private collection ostracon	113797	Roman	?	ostracon (potsherd)	periphrastic imperative
Vienna D 6464	56001	late Ptolemaic	?	papyrus	prepositions, negative past, negative future, second tense, and *sḏm.f*
ZÄS 35 (1897), p. 147-148 no. 2 (location unknown)/ O. Hess	52186	Ptolemaic (?)	?	ostracon (potsherd)	agent nouns (with the virtual relative)

[1] Oddly, Devauchelle gives no dating in his original publication of the ostracon, either on the basis of paleography or excavation context. Nonetheless, the paleography suggests a mid-Ptolemaic date.

Table 2.3
Egyptian Alphabetic Texts 700 BCE – 300 CE
Note: Hieratic/hieroglyphic texts in **bold;** texts marked with an * also appear in Table 2.3

Inventory Number/Publication	TM Number	Date	Provenance	Material	Contents
Berlin 8278	55951	147 BCE	Fayum (perhaps Pelusium)	papyrus	dramatical papyrus with end of alphabet
Berlin 15709 verso	56107	late Ptolemaic-early Roman	?	papyrus	most of the alphabetical sequence
Berlin 23861	56106	1st-2nd century CE	Dime/ Soknopaiou Nesos	papyrus	list of individual letters, traces of a month list
Carlsberg 7	**96991**	**1st-2nd century CE**	**Tebtunis**	**papyrus**	**hieroglyphic signs who values begins with H, R, Q**
Carlsberg 12*	55997	2nd century CE	Tebtunis	papyrus	list of words beginning with Ḏ/Ṯ
Carlsberg 43	56005	2nd century CE (?)	Tebtunis	papyrus	list of words beginning with W followed by words beginning with S
Cairo 31169 verso	45958	3rd century BCE	Saqqara	papyrus	list of personal names beginning with ʾI
Deir el-Medina, O. dem. DeM 4-2	N/A	1st century BCE-1st century CE	Deir el-Medina	ostracon (potsherd)	list of birds in alphabetic order with numbers
Demotisches Namenbuch (P. Carlsberg 425+BM EA 10852+BM EA 10856)	48731	4th century BCE	Tebtunis	papyrus	list of personal names beginning with H, N, P, ʾI, ʿ, Ḫ, G, and T

Florence PSI inv. without no./Bresciani, Fs. Lüddeckens, no. 5	89424	Roman (?)	Tebtunis	papyrus	list of vegetables beginning with Q
Florence PSI inv. without no./Bresciani, Fs. Lüddeckens, no. 8	89430	Roman (?)	Tebtunis	papyrus	list of words beginning with L
Heidelberg Gr. 295 verso	55994	Roman	?	papyrus	list of words beginning with Ḥ
Oxyrhynchus B.3 6/2	N/A	1st-2nd century CE	Oxyrhynchus	papyrus	alphabetized bird names with numbers
Saqqara dem 27	56128	4th-3rd century BCE	Saqqara, Sacred Animal Necropolis	papyrus	two alphabetical sequences embedded in sentences
Saqqara DO 19	N/A	4th century BC	Saqqara, Sacred Animal Necropolis	writing board (limestone)	list of personal names beginning with H plus epithets
Tanis Sign Papyrus, BM EA 10672	**44763**	**1st-early 2nd century BCE**	**Tanis**	**papyrus**	**hieroglyphic signs with hieratic explanations, including alphabetic uniliteral signs**

CHAPTER 3. SCRIBAL EDUCATION

From the very first publications of the grammatical exercises and alphabetic texts, they were understood to be part of the process of scribal education. The grammatical texts in particular were generally classified as "school" texts or "scribal exercises."[1] Yet what precisely "scribal education" in the Greco-Roman period looked like has proven curiously elusive. As John Tait pessimistically put it, "How are we to identify school material? It seems that a text is often described as a writing exercise simply when it is difficult to see what other practical or aesthetic purpose it could have served."[2] Compounding the issue is the poor documentation from the tenth to the fourth centuries BCE (from the beginning of the Third Intermediate Period until the beginning of the Ptolemaic period),[3] which creates a gap of several centuries separating the bulk of the Greco-Roman material from the well-documented practices of the New Kingdom. By the Ptolemaic period, texts assigned to the sphere of scribal education are more frequently attested, but they are still relatively few in number, occasionally without provenance, and only roughly datable by paleography. At the same time, the native Greek-speaking population in Egypt were naturally also educating their children in Greek, raising the issue of Greek influence on Egyptian methods.

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[1] E.g. Nathaniel Reich, "A Grammatical Exercise of an Egyptian Schoolboy," *JEA* 10 (1924): 285–88; W. Erichsen, *Eine ägyptische Schulübung in demotischer Schrift*, Det Kongelike Danske Videnskabernes Selskab. Historisk-filologiske Meddelelser 31, 4 (Copenhagen: I Kommission hos E. Munksgaard, 1948).
[2] W. J. Tait, "Aspects of Demotic Education," in *Akten des 21. Internationalen Papyrologenkongresses, Berlin 1995*, ed. Bärbel Kramer et al., vol. 2, Archiv für Papyrusforschung und verwandte Gebiete 3 (Stuttgart: Teubner, 1997), 937.
[3] John Taylor, "The Third Intermediate Period," in *The Oxford History of Ancient Egypt*, ed. Ian Shaw (Oxford: Oxford University Press, 2000), 324. While school exercises are poorly attested, for an overview of primary sources generally, see Robert Kriech Ritner, *The Libyan anarchy: inscriptions from Egypt's Third Intermediate Period*, Writings from the ancient world 21 (Atlanta: Society of Biblical Literature, 2009).

The goal of this chapter is to survey the demotic evidence related to or potentially related to the process of schooling and compare this material both to earlier New Kingdom practices and to contemporaneous Greek pedagogical techniques. The role the grammatical and alphabetic texts played in this process can then be identified. Before analyzing the demotic practices, I begin by sketching the well-attested New Kingdom and Greek educational practices in order to provide a baseline for understanding the demotic evidence. Then I survey the literary, documentary and archaeological evidence related to the institution framework of the school. Finally, I consider what topics belonged to the curriculum and demonstrate that the grammatical and alphabetic texts formed a key aspect of the curricular content.

Ultimately, I show that demotic exercises arose out of a local scribal context and were linked with the practical aspects of scribal education. I contend that scribal education, at least in the beginning of the Ptolemaic period, was not a major departure from the curriculum of the New Kingdom in terms of curricular content, although it did strongly differ in emphasis. While the grammatical exercises mark a response to a more complex linguistic environment, they do not indicate the supremacy of Greek educational norms in the instruction of Egyptian language and script, but rather a continuation of a process begun in the New Kingdom. Nonetheless, the continuing bilingual environment and the increasing dominance of Greek in the Roman Period did result in the introduction of new types of bilingual exercises into the curriculum in the first to second centuries CE.

2.1 New Kingdom Practices

In the New Kingdom, the number and type of sources for education dramatically increased. Education from earlier periods was primarily known through references in

literary texts and biographical inscriptions.[4] But by the New Kingdom, school exercises, which had scarcely been known in the Middle and Old Kingdoms, appear in the thousands on ostraca and papyri from Thebes (Deir el-Medina and the Ramesseum) and Memphis.[5] The vast majority of these ostraca and papyri contain literary texts. While scholars agree that these literary texts on ostraca and papyri are the product of scribal education, there are two competing theories for what part of the educational process they represent.

From the ostraca, the following texts frequently occur: *Kemyt*, the *Instruction of Khety*, the *Instruction of Amenemhet*, the *Hymn to the Inundation*, the *Instruction of a Man for his Son*, the *Prophecies of Neferti*, the *Satire of the Trades*, the *Loyalist Instruction*, and the satirical letter from P. Anastasi I.[6] For the *Instruction of a Man for his Son* alone, 140 ostraca are attested.[7] The language of these texts was the classical Middle Egyptian, not the vernacular Late Egyptian. Their function as school exercises

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[4] Hellmut Brunner, *Altägyptische Erziehung* (Wiesbaden: Otto Harrassowitz, 1957), 10–17.
[5] For an overview, see Ibid., 17-27-105; Baudouin van de Walle, *La transmission des textes littéraires égyptiens* (Bruxelles: Fọndation égyptologique reine Élisabeth, 1948); Ronald J. Williams, "Scribal Training in Ancient Egypt," *Journal of the American Oriental Society* 92, no. 2 (1972): 214–21; Christopher Eyre and John Baines, "Interactions between Orality and Literacy in Ancient Egypt," in *Literacy and Society*, ed. Karen Schousboe and Mogens Trolle Larsen (Copenhagen: Akademisk Forlag, 1989), 91–119; Jürgen Osing, "School and literature in the Ramesside Period," in *L'impero ramesside: convegno internazionale in onore di Sergio Donadoni*, ed. Anonymous (Rome: Università degli Studi di Roma, 1997), 131–42; Andrea McDowell, "Teachers and students at Deir el-Medina," in *Deir el-Medina in the third millennium AD: a tribute to Jac. J. Janssen*, ed. R. J. Demarée and A. Egberts (Leiden: Nederlands Instituut voor het Nabije Oosten, 2000), 217–33.
[6] E.g. for the Deir el Medina ostraca, see Georges Posener, *Catalogue des ostraca hiératiques littéraires de Deir el-Médineh. Tome I, Nos 1001 à 1108*, Documents de Fouilles 1 (Cairo: IFAO, 1938); Georges Posener, *Catalogue des ostraca hiératiques littéraires de Deir el-Médineh. Tome II, Nos 1109 à 1167*, Documents de Fouilles 18 (Cairo: IFAO, 1951); Georges Posener, *Catalogue des ostraca hiératiques littéraires de Deir el-Médineh. Tome III, Nos 1267-1675*, Documents de Fouilles 20 (Cairo: IFAO, 1977); Georges Posener, *Catalogue des ostraca hiératiques littéraires de Deir el-Médina. Tome IV, Nos 1676-1774*, Documents de Fouilles 25 (Cairo: IFAO, 1990); Annie Gasse, *Catalogue des ostraca littéraires de Deir Al-Médîna. Tome V. Nos 1775-1873 et 1156*, Documents de Fouilles 44 (Cairo: IFAO, 2005).
[7] Fischer-Elfert Hans-Werner, *Die Lehre eines Mannes für seinen Sohn: eine Etappe auf dem "Gottesweg" des loyalen und solidarischen Beamten des Mittleren Reiches*, vol. 2, Ägyptologische Abhandlungen 60 (Wiesbaden: Harrassowitz Verlag, 1999).

can be established by the following features: typically each ostracon preserved an excerpt only a few lines in length, phrases were sometimes marked by verse points,[8] mistakes and garbling of sentences were not infrequent, and dates occurred on some.[9] Nonetheless, the ostraca are by and large written in competent hands, with only a small fraction displaying poor handwriting.[10]

The texts on the papyri, referred to generally as the Late Egyptian Miscellanies,[11] are, as their name implies, heterogeneous in nature. Each papyrus preserves an idiosyncratic mix of model letters, hymns, praises of kings, passages proclaiming the superiority of the scribal profession above all others, and the like. On many of the papyri, a colophon lists the name of the scribe, who is called an apprentice (*ḫry-ꜥ*), and his master to whom he is dedicating the text. It is noteworthy that in the colophons and headings, the copyist also often identifies as a "scribe," which is the same title that the teacher typically possesses and suggests an advanced stage of education.[12] Frequently a date occurs for when each section of the papyrus was written, revealing that scribes typically wrote 3-5 pages a day, a significantly larger amount of text than would have been contained on an ostraca. The hands were almost uniformly well formed and fluid. The language of the

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[8] Verse points are not exclusive to school exercises. They occur in beautifully and clearly professionally produced manuscripts such as the Chester Beatty love songs, see Alan H. Gardiner, *The library of A. Chester Beatty: the Chester Beatty papyri, No. 1* (London: Oxford University Press, 1931). More generally, see Nikolaus Tacke, *Verspunkte als Gliederungsmittel in ramessidischen Schülerhandschriften*, Studien zur Archäologie und Geschichte Altägyptens 22 (Heidelberg: Heidelberger Orientverlag, 2001).
[9] Andrea McDowell, "Student Exercises from Deir el-Medina: The Dates," in *Studies in Honor of William Kelly Simpson*, ed. Peter Der Manuelian, vol. 2 (Boston: Museum of Fine Arts, 1996), 601–8.
[10] Adolf Erman, *Die ägyptischen Schülerhandschriften* (Berlin: Königliche akademie der Wissenschaft, 1925), 23; Brunner, *Altägyptische Erziehung*, 66; van de Walle, *Transmission*, 10 and 15; Jaroslav Černý, "Review of B. van de Walle, La Transmission des textes littéraires égyptiens," *CdE* 24 (1949): 69.
[11] Alan H. Gardiner, *Late-Egyptian miscellanies* (Bruxelles: Édition de la Fondation égyptologique Reine Élisabeth, 1932); Ricardo Augusto Caminos, *Late-Egyptian miscellanies*, Brown Egyptological Studies 1 (London: Oxford University Press, 1954).
[12] Giuseppina Lenzo Marchese, "Les colophons dans la littérature égyptienne," *BIFAO* 104 (2004): 359–76.

Miscellanies was Late Egyptian, the vernacular stage for this period and also the language of administration, thus providing the student with practical instruction.

On the basis of the above evidence, early scholars such as Erman, Brunner, and van de Walle,[13] and as well as more recently, Christopher Eyre,[14] have maintained that the ostraca represent elementary scribal exercises and the papyri an advanced curriculum. Therefore, the Middle Egyptian texts would have been the first stage of education, and the administrative Late Egyptian the second. Eyre in particular has argued that the use of classical texts for elementary education was due to the fact that scribal training "explicitly targetted full literacy" and that the copying of the texts "promoted fluency and rote-knowledge."[15] Eyre suggests that traditional Quranic schooling methods provide a useful parallel, since students do not use elementary exercises, but rather immediately begin copying and reading the Quran itself.

This view has been challenged by Andrea McDowell.[16] She points out that while the ostraca do not usually preserve a colophon identifying the copyist, there are 15 that do. And these colophons label the copyist as an apprentice and dedicate the text to the apprentice's master, just as Miscellanies do. Moreover, there is actually a fair amount of overlap between the types of texts that occur on the ostraca and Miscellanies, including Late Egyptian Miscellany type texts on ostraca and Middle Egyptian literary texts in the

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[13] Brunner, *Altägyptische Erziehung*, 66 and 87; Erman, *Die ägyptischen Schülerhandschriften*, 23; van de Walle, *Transmission*, 10 and 15. Van de Walle does think that the very first exercises would have been sign and word exercises, Ibid., 17.
[14] Eyre and Baines, "Interactions between Orality and Literacy"; Christopher Eyre, "Children and Literature in Pharaonic Egypt," in *Ramesside Studies in Honour of K. A. Kitchen*, ed. Mark Collier and Steven Snape (Bolton: Rutherford Press Limited, 2011), 177–87.
[15] Eyre, "Children and Literature in Pharaonic Egypt," 184.
[16] McDowell, "Student Exercises from Deir el-Medina"; McDowell, "Teachers and students at Deir el-Medina."

Miscellanies. The ostraca and papyrus Miscellanies also should not necessarily be seen as two opposing material types, because both were fairly inexpensive and common.[17] The ostraca overwhelming come from Deir el-Medina, where smooth pieces of limestone were abundant, and the Miscellanies from Memphis, where scrap papyrus was abundant.[18] Therefore, McDowell suggests seeing the ostraca as part of the advanced curriculum as well.

Ultimately, the criticisms of McDowell clearly indicate that New Kingdom evidence cannot be neatly divided into a two stage process in which excerpts from Middle Kingdom literary texts were copied on ostraca at the elementary level and Late Egyptian administrative and literary models were copied on papyri at an advanced level. I do not agree with McDowell that all the texts, both ostraca and papyri, must be seen as part of an advanced curriculum, but rather that there was not a clear division. Instead it seem likely that all genres of texts were copied throughout the process of scribal Egyptian. Yet still missing are the very first writing attempts which should show awkward sign formation and an unsure hand.

The vast majority of the discussion about New Kingdom scribal education tend to center on the literary ostraca and papyri, but this debate often obscures the fact that other types of texts were used as exercises from this period. While these other types of texts do not solve the vexing problem of the very first writing attempts, they do broaden what we know about New Kingdom curricula. As McDowell has convincingly argued, the main way to identify scribal exercises is by a date in the middle or end of a text.[19] The dated

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[17] Jac. J. Janssen, "The price of papyrus," *Discussions in Egyptology* 9 (1987): 33–35.
[18] The papyri used for the Miscellanies were reused pieces that had been washed off and glued together to form a new roll. Erman, *Die ägyptischen Schülerhandschriften*, 4–6.
[19] McDowell, "Student Exercises from Deir el-Medina."

ostraca include not just the literary and Miscellany type texts, but also hymns,[20] extracts from the Book of the Dead,[21] sections of the Opening of the Mouth ritual,[22] and magical texts.[23] As the Deir el-Medina scribes were involved in funerary rituals as a side job, such practice would have been eminently useful.[24] So too model letters, which occur both in the ostraca and papyri, would have had a functional, administrative aspect.

Attested in the Deir el-Medina ostraca are a series of sign exercises (Table 3.1). These ostraca consist of repetitions of the same sign or unconnected signs written at random. Their purpose appears to be the practice of sign formation, but the signs are usually well formed. Only two ostraca, marked with an * in Table 3.1, contain poorly formed signs that might have been the work of a novice.

Table 3.1. Sign exercises

Ostraca	**Contents**
ODM 1697 verso	*ḥnw* sign
ODM 1775	seated child signs
ODM 1776 verso	*ḥnw* signs
ODM 1777 recto and verso	Seth animal signs
ODM 1778	bee sign and gm-bird
ODM 1779	various signs
ODM 1780*	*nsw-bỉty*
ODM 1781 recto	crocodile signs
ODM 1783	*kꜣ*-bull
ODM 1784*	various bull signs
O. Turin 57300	various signs
O. Turin 57350	various signs
O. Turin 57403 verso	*ḥnw* signs and others

[20] ODM 1101, Jaroslav Černý and Alan Gardiner, *Hieratic Ostraca* (Oxford: University Press, 1957), pl. 5, 1; 93,3; 106, 1; 10, 2.
[21] Ibid., pl. 96, 1.
[22] O. Michaelides 67; ODM 1712.
[23] Černý and Gardiner, *Hieratic Ostraca*, pl. 41, 2.
[24] McDowell, "Teachers and students at Deir el-Medina," 231–32.

Lists also formed a key part of scribal education. The most famous of these lists is the elaborate Onomasticon of Amenemope, for which all manuscripts date to the 21st to 22nd Dynasty or later.[25] Its title identifies it as a *sbȝyt* "teaching," the same title as many of the literary texts which occur as scribal exercises at Deir el-Medina, and since excerpts from the onomasticon occur on two ostraca, a writing board, and a leather roll, it was likely used as a school text.[26] However, no New Kingdom examples of the text, either from Deir el-Medina or elsewhere, exist and it may have been composed at the end of the New Kingdom or beginning of the 21st Dynasty (see Chapter 4). Nonetheless, lists are attested in the New Kingdom and the Deir el-Medina ostraca include simple repeated signs, personal names, royal names, and assorted other topics.

The following three tables provide a summary of lists that occur in the Deir el-Medina ostraca:

Table 3.2. Lists of Royal Names

Ostracon	**Contents**
ODM 1725	various royal names in cartouches beginning with the sun-sign
ODM 1785	various royal names in cartouches beginning with the sun-sign
ODM 1787	various royal names in cartouches beginning with the sun-sign

[25] Another long onomastic text, the Ramesseum Onomasticon, dates to the Second Intermediate Period. It is difficult to say whether or not it was ever used as a school text as the only manuscript is clearly a professionally produced text.

[26] The main papyri that likely preserved the entire text are P. Golenischeff, P. Hood (BM 10202), and the Ramesseum fragments published in Spiegelberg's Hieratic Ostraka and Papyri found in the Ramesseum, pl. XLIII-XLV and XLVII. The excerpts can be found in the London leather roll (BM 10379) ostracon JE 67100, writing board BM 21635, and an ostracon from the Ramesseum. P. Boulaq IV verso contains the incipit written twice. See Alan Gardiner, *Ancient Egyptian Onomastica* (Oxford: Oxford University Press, 1947), 26–35.

Table 3.3 Lists of Personal Names

Ostracon	**Contents**
ODM 1410	base of *šms*-, *ḥzy*-, and *mꜣꜥty*-
ODM 1411	base of *nfr*-
ODM 1412	base of *pꜣ*- and *sw*-
ODM 1718 verso	unrelated names[27]
ODM 1788	base of *stḫ*-
ODM 1789	base of *p(ꜣ)-n*-
ODM 1790	base of *ỉmn*-
ODM 1791	names ending in -*qn*
ODM 1794 verso	base of *ḫꜥ*-
O. Bruxelles 6768 verso	base of *nb*- and *bꜣk*-
O. Turin 57297	unrelated names
O. Turin 57382	unrelated names
O. Turin 57471	base of *ptḥ*-

Table 3.4. Assorted Lists[28]

Ostracon	**Contents**
ODM 1792	toponyms
O. Turin 57473	Amun-Re epithets
ODM 1724 recto	names of boats
ODM 1726	words with *msḥ* and *šps*
O. Turin 57101	titles with *sḫ ꜥꜣ*
O. Turin 57104	parts of the body
O. CG 25760[29]	titles beginning with *ḥrj*
O. CG 72502[30]	titles beginning with *ḥrj* and *jmj-r*.

Although the above lists do not have dates[31] that conclusively link them to school exercises, the content itself and the fact that we have repeated versions of the lists make it

[27] But the recto is a model letter and the names are not associated with a date, number, or good, making it unlikely that is an account or daybook.
[28] The following difficult ostraca should be mentioned: O. Turin 57139 (potentially some sort of grammatical exercise with ḏd, but too broken to tell), O. Turin 57406 (probably a writing exercises for the days, which are given in sequential order), and series of ostraca with strange and poorly formed hieroglyphs: O. Turin 57523, 57532, 57533.
[29] Jaroslav Černý, *Ostraca hiératiques* (Cairo: IFAO, 1935), 80.
[30] *KRI* III, 643.
[31] McDowell notes two lists with dates: Černý and Gardiner, *Hieratic Ostraca*, pl. 41, 2 and 103,2. However, neither of the texts preserved on these ostraca seem to be lists. The former is a magical text and the latter a text of indeterminate nature. McDowell, "Teachers and students at Deir el-Medina," 232, ft. 108.

likely that this formed a smaller part of the New Kingdom curriculum. Further confirmation comes from parallel lists that are embedded within the Miscellanies. Gardiner originally commented in his publication of the Miscellanies that one of their purposes was "to familiarize the writer or reader with a number of rare words and names of things."[32] In the middle of model letters and other texts often come long lists of various types of objects, place names, food stuffs, materials and more. The sheer repetitiveness lead Gardiner to remark that they possessed "an inanity hard to equal even in this turgid class of compositions"[33] and Quack, describing a section on provisions embedded in a model letter, that "wer diesen Text als Schüler durcharbeiten mußte, dürfte entweder fürs Leben traumatisiert sein oder tatsächlich alle auch nur einiger maßen gebräuchlichen Lexeme der Ausstattung mit Lebensmitteln beherrschen."[34] While many of these embedded lists share similarities to the Onomasticon of Amenemope and the Ramesseum Onomasticon,[35] both of those texts are clearly professionally produced masterworks without excerpts attested in the ostraca and papyri.

Literary exercises were without a doubt a major focus of scribal education in the New Kingdom. Yet scribal education was not restricted to those texts. Even if the theory that the ostraca represent elementary exercises is correct, those ostraca include excerpts from the Miscellanies, including the model letters that educate the students about administrative norms, religious texts, several types of lists and even sign exercises. The

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[32] Gardiner, *Late-Egyptian miscellanies*, 44.
[33] Ibid.
[34] Joachim Friedrich Quack, "Ägyptische Listen und ihre Expansion in Unterricht und Repräsentation," in *Die Liste: Ordnungen von Dingen und Menschen in Ägypten*, ed. Susanne Deicher and Erik Maroko, Ancient Egyptian Design, Contemporary Design History and Anthropology of Design 1 (Berlin: Kulturverlag Kadmos, 2015), 56.
[35] Gardiner, *AEO*.

fact that the New Kingdom curriculum was broader than just literary extracts is important, because as will be discussed below, it shows there is continuity between the New Kingdom practices and the demotic practices.

2.2 Greek Educational Norms

Nearly seven hundred years after the New Kingdom, with the establishment of Ptolemaic rule, the number of Greeks and Greek speakers in Egypt increased and the Greek language began to be used administratively. Naturally, these two developments created a need for Greek language education in Egypt. Significantly more research has been conducted on Greek education in Egypt than on the native Egyptian process. The Greek evidence is fairly abundant and consists of both exercises produced during the educational process and Hellenistic sources describing the overall process of Greek schooling. The picture that emerges from this evidence is that Greek education was a relatively standardized and systematized pedagogical process from the third century B.C.E. to the fourth century C.E.[36] The system seems to have been insulated from the political upheavals of this period and Greek education in Egypt changed little from the Ptolemaic to the Roman period.[37]

The Greek educational system was, at least in theory, divided into three distinct stages each overseen by a specific type of teacher.[38] The major sources for this neatly

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[36] For the purposes of this discussion, I am only concentrating on Greek evidence in Egypt until the 4th century CE. Evidence from outside Egypt in the larger Hellenistic and Roman world, as well as later evidence, is beyond the scope of this discussion.
[37] Raffaella Cribiore, *Gymnastics of the Mind: Greek Education in Hellenistic and Roman Egypt* (Princeton: Princeton University Press, 2001), 8; Teresa Morgan, *Literate education in the Hellenistic and Roman worlds* (Cambridge: Cambridge University Press, 1998), 22–25.
[38] Raffaella Cribiore, *Writing, Teachers, and Students in Graeco-Roman Egypt*, American Studies in Papyrology 36 (Atlanta: Scholars Press, 1996), 13.

organized model of pedagogy were literary texts.[39] Students learned the basics of reading, writing, and arithmetic under an instructor called a *grammatodidaskalos, grammatistes,*[40] or *didaskalos* (γραμματοδιδάσκαλος, γραμματιστής, διδάσκαλος). Then a student progressed to a critical study of language, literature, and poetry, including Homer under the direction of a *grammatikos* (γραμματικός). Finally, if a student had the wealth and inclination, a *rhetor* or *sophistes* (ῥήτωρ, σοφιστής) would teach rhetoric, prose, and composition.

Descriptions by ancient authors also all point to the pedagogical method of reading and writing as a sequence of steps, gradually increasing in complexity and difficulty, through which a student must linearly proceed.

> Dionysius of Halicarnassus from *De Comp. Verb.* 211 (XXV *ad fin.*)[41]
> τὰ γράμματα ὅταν παιδευώμεθα πρῶτον μὲν τὰ ὀνόματα αὐτῶν ἐκμανθάνομεν, ἔπειτα τοὺς τύπους καὶ τὰς δυνάμεις, εἶθ᾽ οὕτω τὰς συλλαβὰς καὶ τὰ ἐν ταύταις πάθη, καὶ μετὰ τοῦτο ἤδη τὰς λέξεις καὶ τὰ συμβεβηκότα αὐταῖς, ἐκτάσεις τε λέγω καὶ συστολὰς καὶ προσῳδίας καὶ τὰ παραπλήσια τούτοις: ὅταν δὲ τὴν τούτων ἐπιστήμην λάβωμεν, τότε ἀρχόμεθα γράφειν τε καὶ ἀναγινώσκειν, κατὰ συλλαβὴν μὲν καὶ βραδέως τὸ πρῶτον
> When we are taught letters, first we learn their names, then their forms and values, then in due course syllables and their modifications, and after that words and their properties, viz. lengthenings and shortenings, accents, and the like. After acquiring the knowledge of these things, we begin to write and read, syllable by syllable and slowly at first.[42]

The evidence from actual school contexts in Egypt, however, suggests a more imperfect reality than the ideal model enshrined by ancient authors. Cribiore in her study

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[39] Cribiore, *Gymnastics of the Mind*, 37.
[40] The term *grammatistes* does not actually occur in Egyptian papyri, although it is attested elsewhere; it was also occasionally used to refer to a teacher of secondary education, as well as an elementary instructor. For references to *grammatistes* in each of these senses, see Robert A. Kaster, *Guardians of Language: the grammarian and society in late antiquity* (Berkeley: University of California Press, 1988), 447–52. For its absence from Egyptian papyri, see Cribiore, *Writing, Teachers, and Students*, 13.
[41] Edition and publication in W. Rhys Roberts, *Dionysius of Halicarnassus. On literary composition, being the Greek text of the De compositione verborum* (London: Macmillan, 1910).
[42] Translation after Cribiore, *Writing, Teachers, and Students*, 140.

of Greek education in Egypt emphasizes that "the picture that emerges is one of great variety. Its outlines depended on several factors: not only educational stages, but also urban education versus education in the country, economic and social status of the pupil, and purely situational circumstances."[43] One of the major reasons why such variety existed is that a school was synonymous with an individual teacher. Such an individual could be a well-respected scholar or minimally competent, established in a city or an itinerant who wandered from place to place, and an adherent to an established set of pedagogical methods or possessed of certain idiosyncratic tendencies.

Egyptian papyrological evidence reveals the diverse nature of teachers. The term *kathegetes* (καθηγητής) was used for teachers who instructed at different levels and who were probably privately employed.[44] As such, they instructed their pupils at the pupil's home. Similarly, children may also have learned basic letters at home from parents or pedagogues (παιδαγωγός).[45] Other papyri suggest that elementary schooling occurred in designated buildings or rooms, called *didaskaleia*. A first century CE letter from a certain Sarapion to his friend Ptolemaios is addressed to the school (γραμματοδιδάσκαλεῖον) of Melankomas.[46] From the second century BCE, a papyrus with model letters and instructions describes students as *andres* "men" and references a school of a certain Leptines.[47] This suggests that Leptines was a teacher for adult students.

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[43] Cribiore, *Gymnastics of the Mind*, 18.
[44] For a list of references to *kathegetai* in papyri, see Cribiore, *Writing, Teachers, and Students*, 167. Note that the *kathegetai* listed in examples 1-5 instructed at a more advanced level, but examples 6-7 were elementary instructors; see also discussion on pg. 17 and note 31.
[45] Ibid., 15–16.
[46] SB III 7268 (TM 18870).
[47] P. Paris 63. See description by Cribiore, *Gymnastics of the Mind*, 189.

Although the process of schooling had great variety, the basic repertoire of pedagogical content was stable. Texts produced by students include letters of the alphabet, alphabets, syllabaries, lists of words, writing exercises, short passages, longer passages, *scholia minora,* compositions, and grammatical exercises. These texts can be securely identified as school exercises for several reasons. First, the literary sources mentioned above describe the activities that occurred in schools and these activities correspond to alphabets, syllabaries, literary passages, etc. Thus the content alone can indicate that a text was a school exercise. Second, paratextual markings such as guidelines, punctuation, lectional signs, and syllabic division were a form of assistance for beginning students and thus indicate that a text was an exercise. Third, mistakes and their corrections may indicate a text was produced by a student. Finally, Cribiore has demonstrated that student's work can be identified paleographically.[48]

If we restrict ourselves to Greek school exercises from Egypt which date from Ptolemaic period - fourth century CE (i.e. the time span in which both Greek and demotic were used), it becomes clear that nearly all types of exercises were used throughout this period. The exercises with the basic letters of the alphabet,[49] alphabetical sequences,[50] syllabaries,[51] word lists,[52] and writing and copying practice[53] are all first attested in the Ptolemaic period and continue well past the 4th century CE. Even greater in number and attested from the same time span are the short[54] and long passages.[55] But the *scholia*

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[48] Cribiore, *Writing, Teachers, and Students*, 97–118.
[49] Cribiore, *Writing, Teachers, and Students,* nos. 1-4.
[50] Ibid., nos. 41-59. Earliest attestation is Ptolemaic.
[51] Ibid., nos. 78-81. Earliest attestation is Ptolemaic.
[52] Ibid., nos. 98-113. Earliest attestation is 2nd century BCE
[53] Ibid., nos. 129-146. Earliest attestation is 2nd century BCE.
[54] Ibid., nos. 175-219. Earliest attestation is 3rd century BCE.
[55] Ibid., nos. 233-302. Earliest attestation is 3rd century BCE.

minora,[56] commentary and glosses on passages of Homer, and grammatical texts[57] are more sparsely preserved and the earliest identified school exercise for each dates to the first to second century CE. In the case of the *scholia minora,* the evidence is likely deceptive. The practice of commenting on Homeric works has been traced back to at least the fifth century BCE, but was the province not just of students, but of scholars and educated adults.[58] Discerning which texts were students' work and which derived from other contexts is difficult and there may in fact have been Ptolemaic school exercises of this type, they simply have not been identified as such.[59] For the grammatical exercises, the situation is more complex. While grammar may have been studied as part of literary exercises, there is no evidence that it became as distinct area of study until the Roman Period. The grammatical exercises themselves were a by-product of theoretical grammatical treatises, particularly Dionysius Thrax's *Techne Grammatike*, which dates at the earliest to the end of the second century BCE.[60] In other words, grammatical exercises in Greek were not present in Egypt until several centuries after the establishment of Ptolemaic rule.[61]

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[56] Ibid., nos. 325- 341. Earliest attestation is 1st-2nd century CE.
[57] Ibid., nos. 358-371. Earliest attestation is 1-2nd century CE.
[58] Cribiore, *Writing, Teachers, and Students*, 50.
[59] See the discussion in ibid., 50-51.
[60] The dating of the work is hotly debated. Alfons Wouters, *The grammatical papyri from Graeco-Roman Egypt, contributions to the study of the "Ars Grammatica" in antiquity*, Verhandelingen van de Koninklijke Academie voor Wetenschappen, Letteren en Schone Kunsten van België, Klasse der Letteren 92 (Brussel: Paleis der Academiën, 1979), 33–37; Alfons Wouters, "The Grammatical Papyri and the Techne Grammatike of Dionysius Thrax," in *Dionysius Thrax and the Technē grammatikē*, ed. Vivien Law and Ineke Sluiter, Henry Sweet Society studies in the history of linguistics 1 (Münster: Nodus Publikationen, 1995); Vivien Law and Ineke Sluiter, *Dionysius Thrax and the Technē grammatikē* (Münster: Nodus Publikationen, 1995). Cribiore states that she considers "the body of the *Techne* as a product of Late Antiquity," Cribiore, *Gymnastics of the Mind*, 185.
[61] Cribiore writes, "Moreover, until the beginning of the Roman period, the need to reflect on and classify grammatical terms and forms was not felt so acutely. Even the systematic practice of declension and conjugation, which we see in the schoolrooms of Roman Egypt and which appears in the scholarly works of grammarians after the fourth century, was apparently unknown in Hellenistic schools." Cribiore, *Gymnastics of the Mind*, 210.

Certain aspects of the exercises reflect the practical role writing had in daily life. Greco-Roman Egypt was highly literate and the introduction of Greek as an administrative language in Egypt seems to have sparked a true increase in the quantity of written material.[62] Moreover, those who could, albeit laboriously and painfully, write to a minimal extent, did so.[63] Those who wrote with difficulty were labeled "slow writers" (βραδέως γράφων or βραδέως γγράφουσα) but nonetheless wrote their names in subscriptions and signatures. And, despite the fact that the practice of learning to write one's name does not feature in literary descriptions of curricula, the textual evidence clearly indicates that this skill was part of early education.[64] Evidence for the participation of women in literate circles is actually rather abundant, at least compared the Egyptian evidence. A woman is given the title grammatike in her mummy portrait from the first century CE.[65] Several women are appear in papyri with the title "teacher."[66] More general evidence for the literacy of women and their general education come from a variety of letters.[67]

Thus the image that emerges of Greek education in Egypt is one in which there were distinct levels of education and students learned to write through a series of exercises of increasing difficulty. However, these levels were not strictly enforced,

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[62] Dorothy J. Thompson, "Literacy and power in Ptolemaic Egypt," in *Literacy and Power in the Ancient World*, ed. Alan K. Bowman and Greg Woolf (Cambridge: Cambridge University Press, 1994), 70–72.
[63] Illiteracy, that is "not knowing letters," was not a problem however. See Herbert C. Youtie, "Ἀγράμματος: An Aspect of Greek Society in Egypt," *Harvard Studies in Classical Philology* 75 (1971): 161–76.
[64] See Cribiore, *Writing, Teachers, and Students*., texts 12, 23, 40, 51, 55, 57, 400, and 407, as well as the discussion on p. 146-47.
[65] Dominic Montserrat, "Heron 'Bearer of Philosophia' and Hermione 'Grammatike,'" *The Journal of Egyptian Archaeology* 83 (1997): 223–26, doi:10.2307/3822470.
[66] Cribiore, *Gymnastics of the Mind*, 78–83.
[67] Ibid., 88–101; Roger S. Bagnall and Raffaella Cribiore, *Women's Letters from Ancient Egypt, 300 BC-AD 800* (Ann Arbor: University of Michigan Press, 2006).

students did not always proceed through a rigid course of steps, and education was often dependent on individual teachers. Moreover, the exercises were largely focused on letters and syllables at an elementary level and on passages of shorter or longer length at a more advanced level. Grammatical exercises were not a major part of the Greek curriculum until the second century CE or so.

3.3 Evidence for Egyptian Scribal Education in the Greco Roman Period

Sparse evidence exists from demotic literary texts, documentary texts, and archaeological sites. Unlike the Greek evidence, there are no descriptions of the schooling process or documentary texts that clearly identify teachers in activities related to education. Instead, the literary texts make brief mention of the existence of schools but contain little information about them. The documentary evidence only attests to "school-scribes" engaged in administrative and legal activities. And the archaeological evidence is contradictory and complex at best.

3.3.1 Literary Evidence

Several demotic literary texts describe children attending school. The term for school in demotic is *ꜥ-n-sbꜣ*,[68] literally "room of learning," and dates back to the Tenth

[68] CDD ꜥ 3-4.

Dynasty.[69] However, the descriptions in these literary texts must be used cautiously since some refer to prodigy children,[70] a common theme in demotic literature. [71]

Two wisdom texts speak of the education of a child:

P. Insinger 17, 22-23

ḫr ỉr=f 10.t ỉw=f sbq-ms ỉw bw-ỉr-tw=f gm pȝ mwt ỉrm pȝ ꜥnḫ
ḫr ỉr=f ky 10.t ỉw=f ṯȝy tȝ wp.t tȝ sbȝ.t nty ỉw=f rḫ ꜥnḫ n-ỉm=f
He spends 10 (years), when he is small, before understanding death and life.
He spends another 10 acquiring the work of instruction through which he knows how to live.

Onchsheshonqy 6, 9

ỉ.ỉr sbȝ.t nb ḫpr m-sȝ ṯȝy ȝmy.t
All teaching happens after maturing.

The implication of these two maxims is that education has an expected trajectory, years in length, through which a student acquires the necessary knowledge. Yet neither statement implies anything of the content of instruction.

Clearer descriptions are found in the demotic narrative literature. In Setna II, Setna and his wife conceive a child whom they name Si-Osiris. The child's special nature is revealed to Setna in a dream before his birth. Once the child is born, he is perceived as

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[69] First attested use of the term, in the form *ꜥ.t sbȝyt,* is from the tomb of Kheti from Assiut. Elmar Edel, *Die Inschriften der Grabfronten der Siut-Gräber in Mittelägypten aus der Herakleopolitenzeit: eine Wiederherstellung nach den Zeichnungen der Description de l'Egypte*, Abhandlungen der Rheinisch-Westfälischen Akademie der Wissenschaften 71 (Opladen: Westdeutscher Verlag, 1984), 108.

[70] Prodigy children do not just occur in demotic literature. There is also a very similar reference in the Late Egyptian tale, the Blinding of Truth by Falsehood, 4/7-5/1:
ḫr ỉr m-ḫt ˈhrwˈ qˈnˈw ḥr sȝ [n]n wn-ỉn=[s]ˈst ḥrˈ ms wꜥ sȝ ṯȝy ỉw nn wn mỉ-qd=f m pȝy tȝ r [ḏr=f] ỉw=f ꜥȝ m [….] wꜥ [….]tỉ ỉw=f [mỉ] sḫrw [n] ms nṯr ỉw=tw ḥr dỉt=f r tȝ ꜥt-n-sbȝ ỉw=f rḫ sḫȝ r ỉqr sp-sn
"Now many days after this, she gave birth to a male child, for whom there was no equal in the entire land. He was great in […] a […] He was similar in nature to a divine child. He was put in school and he knew how to write extremely well."

[71] The topic of the conception, birth, and raising of children in demotic literature has recently been discussed by Kim Ryholt, *Narrative Literature from the Tebtunis Temple Library*, CNI Publications 35 (Copenhagen: Museum Tusculanum Press, 2012), 187–98.

older than he truly is (i.e. at one year old, he is thought to be two years old) and his remarkable achievements only continue from there:

> Setna II 1/11-12
>
> *ꜥ3y[=f] ḏr=f tw=<w> s r t3 ꜥ.t-[sb3] | […tk]n=f r p3 sḫ r.tw=w dỉ.t n=f sb3.t ḫpr p3 ḫ[m-ḫl s3-wsỉr ỉw=f] ḏd nḫb*[72] *ỉrm n3 sḫ.w pr-ꜥnḫ*
>
> "[He] became big and he became strong. He was put in school [and he over]took the scribe who instructed him. The child [Si-Osiris] began to recite titularies with the scribes of the House of Life."[73]

Despite the fact that Si-Osiris is far from an ordinary child, it is clear that the placement of a child in school once old enough is to be expected. Si-osiris is of course unusual in that he outstrips his teacher and then begins to read the cultic writings housed in the temple scriptorium. But this also implies a divide between the "school" and activities conducted in the House of Life. Si-osiris not only outstripped the teacher of at school, but he was functioning at the same level as the most elite priestly scholars. Also noteworthy is that the teacher is simply called a scribe here. And the Coptic descendant of *sḫ* "scribe" is ⲥⲁϩ, which can mean "writer," but is also the typical word for "teacher, master."[74]

A very similar account occurs in one of the Krugtexte, short demotic literary texts written on a jar, which may actually be another version[75] of childhood of Si-Osiris:

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[72] Quack and Hoffmann suggest reading this as „(sacred) writing", see Friedhelm Hoffmann and Joachim Friedrich Quack, *Anthologie der demotischen Literatur*, Einführung und Quellentexte zur Ägyptologie 4 (Berlin: Lit Verlag, 2007), 340, note m. However the word is literally „titulary" see Wb 2, 308.1-6.
[73] Quack and Hoffmann read here "[Er] wurde groß, er wurde stark. Man gab ihn in die Schu[le …] Er [über]traf den Schreiber, den man ihn unterrichten ließ. Der Ju[nge(?)] wurde […].. von/im Sprechen von (Kult-) Vorschriften (?) mit den Schreibern des Lebenshauses in [Memphis(?)…]", Ibid., 120.
[74] Crum, *A Coptic Dictionary,* 383.
[75] Spiegelberg identifies this tale as "die Jugendgeschichte des Si-usire" and suggests it's a copy of the beginning section of Setne II that describes Si-Osiris' remarkable birth and childhood; Hoffman and Quack too take it as part of Setne II, see Hoffmann and Quack, *Anthologie*, 118. Ryholt however argues that the text in Krugtexte B does not in fact refer to the Si-Osiris of Setna II on the basis of the statement in line 7: *ỉn-n3 p3y=y šr ỉwḫ* "If my son is dumb…" since he feels it unlikely that a prodigy such as Si-Osiris would be referred to in such a manner, see Kim Ryholt, *The Story of Petese Son of Petetum and Seventy Other Good and Bad Stories*, CNI Publications 23 (Copenhagen: Museum Tusculanum Press, 1999), 87, fn. 63.

Krugtexte B, 5-6

ms=s wᶜ ḫm-ḫl ḥwt ỉw=f gᵌy wᶜb(?)[76] *smt rmṯ-ỉw=f-ᶜᵌ m-šs […] [s]ʳᶜnʾḫ=f ỉr=w hll=f ḏle=f ỉr=f ᵌ tᵌ na tᵌ ᶜ-n-sbᵌ dỉ=w s (r) tᵌ sbᵌ ỉrm […]*

She gave birth to a male child, who was of pure(?) form and (in the) form of a very great man […] he [was] nourished and he was nursed and he grew strong. He reached the age of schooling[77] and he was put in the instruction (i.e. school)[78] with […]

This version explicitly refers to an expected age ("the age of schooling") in which a child is sent to school. Both this description and the one from Setna II refer to the child growing strong, a further reference to a certain stage of maturity. The Krugtext also implies that school consisted of multiple children since it states "he was put in school *with*...", although a description of his presumed classmates is destroyed.

Another description of a remarkable child who acquired an unusual level of literacy comes from the cycle of stories on the virtues and vices of women called the Petese Stories:[79]

Petese Tebt. A+B 8/28-29

ḫpr pᵌy.s 10 ʳỉbtʾ ms ms=[s wᶜ] ḫm-ḫl ḥwt ʳtwʾ [=w rn=f r …] [ḏ]lᶜ=f mḥ=f nᵌy=f ss n [s]ᶜnḫ tw=w [s r tᵌ ᶜ.t]-sbᵌ sḫ=f n mr-[sḫ...

"Her ten months of pregnancy passed. [She] gave birth to [a] male child. [His name] was given [as]…He grew strong. He completed his time of nourishment. They put [him in the] school. He wrote as an overseer [of writing…]"

The phrase a "time of nourishment" again indicates an expected timeline of development for a child. Nonetheless this child achieves the remarkable and can write like an advanced scribe.

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[76] Spiegelberg did not read the sign here; for the suggestion of *wꜥb* "pure," see Ryholt, *Narrative Literature*, 193.

[77] Literally, "he made the time belonging to the school." For a discussion of this phrase and parallels, see Ibid., 196.

[78] Presumably this is a mistake for *tᵌ ᶜ-n-sbᵌ* "school."

[79] Ryholt, *The Story of Petese Son of Petetum and Seventy Other Good and Bad Stories*; K. S. B. Ryholt, *The Petese stories II (P. Petese II)*, CNI Publications 29 (Copenhagen: Museum Tusculanum Press, 2006).

Finally, a similar description of a normal child who does not display remarkable intellectual feats confirms that there is a particular age for schooling:

> Hareus son of Pahat, 1/4
> *--- dỉ=w] pȝ šm-[ḥ]l r qnw nȝ mn-[ir]y.w ỉr=w sᶜnḫ=f ḏȝl[=f] ỉr=f ḫ̂ȝ n sḫ*
> They put the boy at the breast of the nurses. They nourished him and he grew strong. He reached the age of writing.

Unfortunately what none of the demotic literary do is describe the actual activities that occur in the school. Therefore they are of limited use in helping identify scribal exercises. Yet they do emphasize that schooling was closely linked to acquiring competence in writing, as we would expect.

There is another ambiguous description of a child in Setna I. Here a school (*ᶜ-n-sbȝ*) is not mentioned but rather the temple scriptorium known as the House of Life. If the text is referring to some sort of education within the House of Life, that would imply that schools could be located in that institution:

> Setne I, 3/8
> *ḫpr pȝy=y ssw n ms ms=y pȝy ḫm-ḫl ntỉ ỉ.ỉr-ḥr=k ntỉ ỉw=w ḏd n=f Mr-ỉb-Ptḥ n rn dỉ=w sḫ=f n šᶜ.t n (?) pr-ᶜnḫ*
> My time of birth occurred and I gave birth to this boy who is before you and who is called Meribptah. They entered him in the register of the House of Life (?).

The key phrase here is *dỉ=w sḫ=f n šᶜ.t n (?) pr-ᶜnḫ*. The demotic phrase is ambiguous and may refer to the registration of the child, or as suggested by Ritner, his schooling: "they cause him to write letters in the House of Life."[80]

[80] Hoffmann and Quack favor the former interpretation, "Man ließ ihn in (das) Register des Lebenshauses eingetragen werden." See Hoffmann and Quack, *Anthologie*, 139. Ritner favors the latter interpretation, "He was taught to write letters in the House of Life." See Simpson, *Literature of Ancient Egypt*, 455.

Finally, in the Book of Thoth there are two references to an "Overseer of Learning" (*mr-sbꜣ*). The text itself is a dialogue that functions as an initiation text containing key scribal and cultic knowledge.

> B01, 1/2
> *ỉn ỉt pꜣ nt tỉ.t smt (n) sꜣ=f ḫr ỉn ḥtl n šbt ḫr ỉn mr-sbꜣ pꜣ nt mtl*
> Is the father the one who causes his son to be prepared? Or is it the compulsion of the stick? Or is the Overseer of Learning the one who instructs?

> B01, 2/7
> *ỉm ỉr=f ˹mr˺-sbꜣ [g]lp rꜣ=f ˹n sbꜣ ˹m-ḫ.t*
> Let him act as an Overseer of Learning. Let his mouth reveal the teaching of the One-who-swallows-the-body.

The title of the Book of Thoth states its purpose as "[The words]s which instruct a youth to take counsel with a son of Wen-yema," where Wen-yema likely refers to Thoth.[81] The text is deeply concerned with learning and the acquisition of knowledge, but there is little explicit reference to elementary learning. Rather it is a theological and scholarly work that derived from elite scribal contexts. It is questionable whether the *mr-sbꜣ* as described in the Book of Thoth actually refers to an elementary teacher or if this a title that would occur outside of this genre. In Setna II, the teacher at the school is simply referred to as a "scribe" and this may be the most common way to refer to a teacher, as in Coptic. Unfortunately, if "scribe" is the preferred term for a teacher, its ubiquity and generality make it nearly impossible to identify a scribe acting as a teacher as opposed to a scribe acting in another role in documentary sources.

3.3.2 Documentary Evidence

[81] Richard Jasnow and Karl-Theodor Zauzich, *Conversations in the House of Life: a new translation of the Ancient Egyptian Book of Thoth* (Wiesbaden: Harrassowitz, 2014), 55.

The documentary evidence (letters, accounts, tax documents, etc.) is sparse in the extreme. It only consists of several mentions of the term *sḫ ꜥ-sbꜣ* "school-scribe" (literally "scribe of the room of teaching"). But none of the attestations indicate that the school-scribe engaged in actual instruction of Egyptian. As stated above, while "scribe" can likely refer to a teacher, no documentary sources make it clear by context that an individual identified as a "scribe" performed educational tasks or acted in the role of teacher.

The term *sḫ ꜥ-sbꜣ* occurs in two Demotic tax lists from the Ptolemaic period. In P. Count 8, a demotic tax-district record from the second half of the second century BCE, school teachers are listed in the totals for the district.[82] P. Count 2, a demotic salt-tax record dated to 229 BCE, lists school teachers (*sḫ ꜥ-sbꜣ*) in two areas in the Arsinoite nome (i.e. the Fayyum).[83] Even more interesting, the overall totals for the region, including a breakdown by profession, occur at the end of P. Count 2 and are paralleled in the Greek text on the verso, P. Count 3.[84] These totals specify the profession in demotic as *sḫ ꜥ.t-sbꜣ Wynn* "Greek school teacher," for which the Greek equivalent gives simply διδασκαλος "teacher." However, the Greek entry occurs in a column that was added later and its totals reflect a reevaluation after entries in column iii and iv were taken into account and then marked for deletion.[85] Among the column iv entries is a line item for

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[82] P. Count 8.6; TM 44393; 243-217 BCE
[83] P. Count 2.97, 190 (initial listing, then summary) and P. Count 2.461; P. Sorb. inv. 211+212 recto + P. Lille dem. III 99; TM 44106; 229 BCE
[84] P. Count 2.492=P. Count 3.32 (P. Count 3 has the same inventory number as P. Count 2 above, TM number, and date) and both record 4 teachers, of whom 2 are male. The heading specifying the profession occurs in P. Count 2.490. See discussion in Willy Clarysse and Dorothy J. Thompson, *Counting the People in Hellenistic Egypt. Vol. I: Population Registers* (Cambridge: Cambridge University Press, 2006), 22.
[85] Ibid., 110, note 32-35 and note 32.

school teachers, but here the Greek further specifies διδάσκαλοι Αιγύ(πτιοι) "Egyptian school teachers."[86]

School teachers are singled out as a profession in such lists because, along with other professions and categories of people, they held a special tax status. The exemption of school teachers from the salt tax is attested from the reign of Ptolemy II Philadelphus, along with other groups associated with Greek culture and administration.[87] Given the Greek culture focus of the exemptions, the specification of "Egyptian school teacher" in P. Count 3 is noteworthy. Clarysse and Thompson argue that this description refers to a native Egyptian who taught Greek, presumably to other Egyptians, and not a teacher who taught Egyptian, i.e. demotic.[88] This seems eminently reasonable, since preferential tax status was associated with the promotion of Greek culture. The possibility remains that the teachers listed in the tax list, particularly the Egyptian teachers, may have earned their tax status for teaching Greek, but may also have taught Egyptian.

Thus if the *sḫ ꜥ-sbȝ* of the tax lists were teachers of Greek, do we encounter the term in any purely Egyptian context? There are some mentions of school scribes in demotic texts, but they describe the school scribes engaged in a variety of activities, none of which are instruction of any kind. The term likely appears in a first century BCE loan

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[86] P. Count 3. 86-7.
[87] See the exemption decree preserved in the letter from Apollonios to Zoilos (c. 256 BCE), which notes "We have exempted bot[h the teachers] of letters…" ἀφείκαμ[εν] τού[ς τε διδασκάλους] τῶν γραμμάτων, *P. Hal.* I. 260-61, TM 5876. For special tax categories, including school teachers, athletic coaches, artists, and victors of national games, see Willy Clarysse and Dorothy J. Thompson, *Counting the People in Hellenistic Egypt. Vol. 2: Historical studies* (Cambridge: Cambridge University Press, 2006), 52–59.
[88] Ibid., 128–29.

document. Parker in the editio princeps[89] read it as *sḫ ꜥn-s[d]ȝ* "write report" but it almost certainly should be read as *sḫ ꜥ-n-sbȝ*:[90]

> P. Tebt. 227, 21-24[91]
> *Tyȝnysys (sȝ) Tȝmȝtrys pȝ sḫ-ꜥn-sbȝ n pr-grg-wsỉr nty-ỉw=w ḏd n=f pr-[grg]-[tȝ-w]ỉrỉ pȝ nty sḫ r-ḫrw=f*
> Dionysios, (son of) Demetrios, the scribe of the school of Kerkeosiris, which is also called Kerkthoeris, is the one who writes on his behalf.

Here the school-scribe is writing official documents. Nothing in the document suggests anything of a school environment. In the Persian Period P. Rylands 9, the school scribe is engaged in very similar activities. The text indicates that a scribe of the school may write prebend documents:

> P. Rylands 9, 8/2-3
> *dỉ pȝ ꜥȝ n mr ỉn=w wꜥ sḫ n ꜥ.t-sb(ȝ) sḫ=f n=f r tȝ dny.t ḥm-nṯr ỉmn n Tȝy=w-ḏy ḥnꜥ psḏ.t=f*
> "the shipmaster had a scribe of the school brought and he wrote for him the share of the prophet of Amun of *Tȝy=w-ḏy* and his Ennead."

P. Rylands 9 is an early demotic report dating to the reign of Darius I, indicating that use of the term for an administrative scribe predates the Ptolemaic period. The text is also quasi literary and other demotic literary texts record these functions of the school scribe. In the Ptolemaic literary text Setne I, a *sḫ ꜥ-sbȝ* is the individual whom Setne summons to create a *sꜥnḫ* document at Tabubu's request. Tabubu says that if Setne desires her, then *ỉw=k r ỉr wꜥ sḫ n sꜥnḫ ỉrm wꜥ ḏbȝ-ḥd r ntỉ nb nkt nb ntỉ mtw=k ḏr=w* "you will make a *sꜥnḫ* document and a document of sale for everything and all movable property that you

[89] Richard A. Parker, "An Abstract of a Loan in Demotic from the Fayum," *RdÉ* 24 (1972): 129–36.
[90] CDD ꜥ 73.
[91] TM 43099 (Berkeley, Bancroft Library UC 1826).

own." Setne, of course, acquiesces and summons the *sḫ n ꜥ.t sbꜣ: my ỉn=w pꜣ sḫ n ꜥ.t sbꜣ* "Let a scribe of the school be brought." Thus the *sḫ ꜥ-sbꜣ* seems to perform notary tasks.[92]

The only attestation of the school scribe in an education context comes from *Krugtexte* B, 7. In the story, the boy Si-Osiris has been sent to school (see above) and his mother apparently asks about his progress:

> *Krugtexte* B, 7
> *ỉw=s tỉ n tw=s(?) pꜣy=f sḫ n ꜥ.t-sbꜣ ḏd ỉn-nꜣ pꜣy=y šr ỉwḫ*
> She gave herself(?) to his scribe of the school, saying: Is my son a fool?

Given the distribution of the term, *sḫ ꜥ-sbꜣ* cannot automatically be assumed to refer to a teacher, despite what its literal meaning implies. Instead *sḫ ꜥ-sbꜣ* may simply refer to a scribe who was trained and could perform administrative duties.

3.3.3 Archaeological Evidence for Egyptian Scribal Education

The only means thus far of identifying the physical spaces where learning took place is through discovery of school texts in a particular location. While concentrations of schools texts certainly suggest that learning activities were conducted in the vicinity of the find, there are a number of problems with this as a means of identifying such spaces. The first is the issue of properly identifying "school" texts as discussed above. The possibility that the texts may have been used for another purpose or in another context means that the underlying reason for such an identification is potentially flawed. The second is that even if the texts originally derived from a school context, the area in which they were discovered may not have been the site of their original use, but rather a secondary context, such as a trash pile. In such a case, the presence of school texts would

[92] P.W. Pestman, *Les papyrus démotiques de Tsenhor (P. Tsenhor): les archives privées d'une femme égyptienne du temps de Darius Ier*, Studia demotica 4 (Leuven: Peeters, 1994), 21–22.

only indicate that a school was located somewhere at the site, but not the specific structure, if a designated location ever even originally existed. The third problem is simply one of record keeping. Many of the texts identified as exercises were excavated at a time and in a manner in which their discovery was not tied to a specific location, building or feature at a site, but simply the site generally.

Many of these issues affect the discussion over potential New Kingdom school sites as well. The most likely candidate is located at the Ramesseum, where the presence of a concentration of literary ostraca has long been seen as an indication that a school was located adjacent to the main temple.[93] Among the over 3000 ostraca discovered during the excavations of the Ramesseum by Petrie and Quibell in 1895-1896, nearly 350 of which came from an area south-east of the temenos and which contained a large number of literary texts. This area was then recleared during the excavations of Christian Leblanc[94] from 2002-2007, its structural features analyzed and explicitly identified as a school. Preliminary studies of the ostraca from the school indicate that about 26% were exercises of signs or words, nearly 48% were literary texts, and 24% were practical texts (letters and such).[95] The location of the find adjacent to the temple suggests a connection between education and the temple. Yet at Deir el-Medina, which has produced hundreds of school exercises, no school can easily be located. While the excavators only noted the location of the ostraca in broad terms, a significant number of them came from the great

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[93] Spiegelberg had already suggested that literary texts among the ostraca from this area indicated the presence of a school.
[94] Christian Leblanc, "L'école du temple (ât-sebaït) et le per-ânkh (maison de vie): à propos de récentes découvertes effectuées dans le contexte du Ramesseum," in *Proceedings of the Ninth International Congress of Egyptologists: Grenoble, 6-12 septembre 2004*, ed. Jean-Claude Goyon and Christine Cardin, vol. 2, OLA 150 (Leuven: Peeters, 2007), 1101–8.
[95] Christophe Barbotin, "Les ostraca hiératiques de l'école du Ramesseum," *Memnonia* 24 (2013): 77.

pit.[96] Thus the one place that school exercises can be linked to is a secondary dumping site. McDowell has suggested that the entire village was the location for the texts and that teaching did not happen at any single location, but rather one-on-one and in no particular place.[97] To further confuse matters for the New Kingdom, literary evidence does imply the existence of a school at a particular location, perhaps even the Residence.[98]

The actual places where Greek education occurred, just as with Egyptian education, present several problems of identification too. Teachers, particularly lower level elementary instructors, probably used a variety of available spaces as a classroom, ranging from private houses, to rented rooms, public spaces, and even outside on a rock. Thus the archaeological identification of such a place is quite difficult. More advanced studies did probably take place in schools that were exclusively designated as teaching spaces. The late antique *auditoria* in Alexandria, while much later than our period of investigation, compose the center of higher education. Constructed in the fifth - sixth century CE, the complex consists of some 20 *auditoria* with several rows of stone benches for students and steps leading up to a center dais for the teacher.[99] Slightly earlier and in a less august setting, a fourth century CE school consisting of several rooms built next door to a private house has been recently excavated in Amheida in the Dakhla Oasis.[100] These rooms too had benches for students to sit on, and also apparently to stand

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[96] Jaana Toivari-Viitala, "Deir el-Medina," ed. Julie Stauder-Porchet, Andreas Stauder, and Willeke Wendrich, *UCLA Encyclopedia of Egyptology* (Los Angeles, 2011), 2, http://escholarship.org/uc/item/6kt9m29r.
[97] McDowell, "Teachers and students at Deir el-Medina," 222.
[98] Ibid., 218; Brunner, *Altägyptische Erziehung*, 14–15.
[99] Grzegorz Majcherek, "The Auditoria on Kom el-Dikka: A Glimpse of Late Antique Education in Alexandria," in *Proceedings of the Twenty-Fifth International Congress of Papyrology, Ann Arbor 2007*, ed. Traianos Gagos (Ann Arbor: University of Michigan Press, 2010), 471–84.
[100] Raffaella Cribiore, "Literary culture and education in the Dakhla Oasis," in *An Oasis City*, ed. Roger S. Bagnall (New York: Institute for the Study of the Ancient World/NYU Press, 2015), 179–92.

on in order to reach the plastered walls that served as an erasable writing surface. As the owner, Serenos, of the adjacent house converted the school rooms into storage rooms after some period of time, the students' and teacher's writing is still preserved. The texts contain poetry, excerpts from the Odyssey, and a Plutarch passage; these exercises probably belonged to secondary education overseen by a grammarian.[101]

Despite these issues, the major locations that scholars have suggested are potential school sites are surveyed below. The best evidence comes from Saqqara, which, like the New Kingdom Ramesseum find, suggests the association of the school with the temple. By and large all other potential sites do not yield enough information to speculate about the location of a school. The link between schooling and the temple is logical because the production of virtually all Egyptian texts from the Greco-Roman period occurred through the institution of the temple. Even notary scribes, who were responsible for contracts and legal documents, were attached to a temple and wrote for the priests of the god of the main local temple.[102] The Tebtunis Temple library reveals that temples kept not just religious and cultic texts, but also narrative literature and scientific material.[103]

3.3.3.1 Saqqara

If we turn to archaeological evidence for Egyptian schools in the Greco-Roman period, one significant site is Saqqara. By the Ptolemaic Period, northern Saqqara became

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[101] Ibid., 190.
[102] Karl-Theodor Zauzich, *Die ägyptische Schreibertradition in Aufbau, Sprache und Schrift der demotischen Kaufverträge aus ptolemäischer Zeit*, Ägyptologische Abhandlungen, 19 (Wiesbaden: O. Harrassowitz, 1968), 2–4; Carolin Arlt, "Scribal Offices and Scribal Families in Ptolemaic Thebes," in *Perspectives on Ptolemaic Thebes. Occasional Proceedings of the Theban Workshop*, ed. Peter Dorman and Betsy Bryan, SAOC 65 (Chicago: Oriental Institute of the University of Chicago, 2011), 17–34.
[103] Kim Ryholt, "On the Contents and Nature of the Tebtunis Temple Library: A Status Report," in *Tebtynis und Soknopaiu Nesos: Leben im römerzeitlichen Fajum. Akten des Internationalen Symposions vom 11. bis 13. Dezember 2003 in Sommerhausen bei Würzburg*, ed. Sandra Lippert and Maren Schentuleit (Wiesbaden: Harrassowitz, 2005), 141–70.

dominated by a large necropolis that contained a complex of animal cults, including the Apis bull. In order to attend to the needs of these cults, particularly the care and regular mummification and internment of the animals, a community of priests and other affiliates of the cults lived and worked in the area. Papyri and ostraca attest to the lives of these individuals, including the mostly Greek archive of Ptolemaios and his brother Apollonius and the demotic archive of Hor. Among the demotic ostraca, tablets, and papyri that have been discovered in the area, a fair number have been identified as scribal exercises, including several alphabetic texts (see Chapter 2). The presence of numerous (relatively speaking) exercise texts suggests that schooling took place there and given that most activity at Saqqara from this period was affiliated with the temples, that schooling too was a function of those temples.[104]

This is further supported by some Greek evidence for an Egyptian school in Saqqara. From the second century BCE Serapeum archive of Ptolemaios, a recluse in the temple,[105] a letter records a dream he had concerning a pair of twin girls for whom he was a protector:

> καὶ ὁρῶ σοι τ[ὰς] διδύμας | ἐν τῷ διδασκαλήῳ τοῦ Τοθῆ[τος][106]
> "And I saw the twin girls in the school of Tothēs"[107]

Naturally, as this description does come from a dream text, its contents can not necessarily be taken literally. However, it seems unlikely that Ptolemaois would dream of

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[104] John Ray, *Demotic Ostraca and Other Inscriptions from the Sacred Animal Necropolis, North Saqqara*, Texts from the Excavations 16 (London: Egypt Exploration Society, 2013), 48.
[105] For the archive in general see, Naphtali Lewis, *Greeks in Ptolemaic Egypt: Case Studies in the Social History of the Hellenistic World* (Oxford: Clarendon Press, 1986), 69–87; Dorothy J. Thompson, *Memphis under the Ptolemies* (Princeton: Princeton University Press, 1988), 212–65.
[106] UPZ I 78.8-9 (TM 3469).
[107] Translation after John Ray, "The Dreams of the Twins in St Petersburg," in *Through a Glass Darkly: Magic, Dreams & Prophecy in Ancient Egypt*, ed. Kasia Szpakowska (Swansea: The Classical Press of Wales, 2006), 200.

the girls at school, unless that was at least plausible for the time and place. As the twin girls, Taous and Thauēs, are Egyptian and there is little evidence that they were literate in Greek (presumably Ptolemaios was responsible for their petitions),[108] it seems as if they attended an Egyptian school. Moreover, since they had taken refuge in the Serapeum,[109] the school was probably located in or at least in the vicinity of the necropolis.

3.3.3.2 Narmouthis/Medinet Madi

The "school texts" from Narmouthis pose a significant problem. Many of these issues are discussed above in Chapter 2. In particular, it seems that many of the demotic ostraca were in fact notes that were used by scribes in the village. As more texts have been published and a better understanding of the social organization of the town emerges, it also becomes clear that some texts previously assumed to describe schooling are in fact testaments to other aspects of life. For example, ODN 3, originally published by Bresciani et al. in 1983 as part of the first publication of the ostraca, was identified as an "admonishment to a schoolboy:"[110]

> *šm r tš Nỉwt-Rnn.t tȝ rsy ḫ^{c} snt qty r pȝ rḫ ssw nb*
> "Go to the southern edge of Narmouthis in order to devote yourself to study everyday."

Further study on the ostraca suggest that the beginning of the instruction actually includes multiple toponymns and *pȝ rḫ*, literally "that which is known," does not refer to anything to do with schooling or education. Rather the text refers to temple personnel who travel

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[108] For the twins, see Ray, "Dreams of the Twins"; Thompson, *Memphis*, 233–45; Lewis, *Greeks in Ptolemaic Egypt*, 79–84.
[109] For the twins troubled situation, see UPZ I 18; 19; 20. For specifically taking refuge in the Serapeum and with Ptolemaios, see UPZ I 19.22-23.
[110] "Ammonimento a uno scolaro," see Edda Bresciani, Sergio Pernigotti, and Maria Carmela Betrò, *Ostraka demotici da Narmuti I (nn. 1-33)*, Quaderni di Medinet Madi 1 (Pisa: Giardini, 1983), 8.

through Narmouthis and the neighboring and outlying areas. Gallo reinterprets the same text as follows:[111]

> *šm r Tš Nỉw.t-Rnmwty.t Tȝ-rsy Rᶜ-snt qty ḫr pȝ rḫ ssw nb*
> "Go to Tosh, Narmuthis, Ta-resi, Ro-senti. Go around according to the instruction, every day."

Similarly, the original publication of ODN 10 (=ODN 163) listed the ostracon under the title "importance of orthography,"[112] but was reinterpreted in a later study as part of the archive of Phatres. The text is in fact part of Phatres' notes for preparing an official document regarding the disturbances associated with tax payment and temples in the area. What precisely is going on in the text is still somewhat unclear, but it certainly does not extol the importance of orthography. Rather it describes an incident in which a scribe interrupted some temple rites in order to complete an administrative task related to tax payments because the priests themselves could not write:[113]

> *96 ỉw bw ỉr=w tḥb ḥᶜ ỉw=f tỉ ỉr nȝ rn šty r nt ḫnny=f tḥb r ḥ.t-ntr r bw ỉr(=w) rḫ sḫ ḥᶜ ỉ.ỉr ḥȝ.t=f šlf n tr.t=w šᶜ ỉr-f ḥwy r bnr ᶜn*
> (Greek) 96. When they did not purify. He had made the lists of collections for which he disturbed the purification rites of the temple because (they/he) did not know how to write. His heart was ashamed because of them so he was cast out.

Most recently, Ana Isabel Blasco Torres has published a reevaluation of the Narmouthis ostraca and their functions.[114] She flatly rejects the original assumption by Bresciani,

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[111] Paolo Gallo, "The Wandering Personnel of the Temple of Narmuthis in the Faiyum and some Toponyms of the Meris of Polemon," in *Life in a Multi-Cultural Society: Egypt from Cambyses to Constantine and Beyond*, ed. Janet H. Johnson, SAOC 51 (Chicago: The Oriental Institute of the University of Chicago, 1992), 119–20.
[112] "Importanza dell'orthografia." Bresciani et al. translate: "If the boy who makes errors in the words does not correct them when he goes to the temple for the correction, this boy does not practice writing; his mind will dictate errors to his hands, and he will often make them." Bresciani, Pernigotti, and Betrò, *Ostraka demotici da Narmuti I*, 16.
[113] Angiolo Menchetti, *Ostraka demotici e bilingui da Narmuthis: ODN 100-188*, Biblioteca di studi egittologici 5 (Pisa: ETS, 2005), 20–21, 100.
[114] Ana Isabel Blasco Torres, "Le bilinguisme gréco-égyptien dans les ostraca de Narmouthis," *Chronique d'Égypte* 180 (2015): 350–59.

Pernigotti and Betrò[115] that all the ostraca were from a school context, as the above two examples illustrate. Instead, she argues that the texts principally in demotic were destined for use in the temple, the texts principally in Greek were addressed to officials or other people external from the temple, and only a small fraction of the Greek and demotic texts may have had an educational function. That a school may have existed is supported by a reference to *t3 ꜥn-sb3* in ODN II 44. Possible school texts include ODN I 25-26 which contain wisdom maxims and Greek ostraca with lists, letters of the alphabet, and moral maxims (OGN I 125-126 and 128-131). Finally, the ostraca containing hieroglyphic, hieratic, and demotic words glossed with Greek letters are also likely school texts (see 3.4.4 below). Thus while there was likely a school at Narmouthis, we do not actually have a large number of ostraca associated with it nor is it clear where precisely it was located at the site.

3.3.3.3 Tebtunis

Despite the mass of papyri from Tebtunis, the city is not often mentioned in discussion of demotic education. The demotic evidence cannot be tied to a single location within the city, except for the material from the Temple Library which is largely seen as a scholarly archive not a school context. Given the sheer quantity of written material the site has produced and the superb quality of the scribes, it must have had a school, but little evidence directly supports this eminently reasonable assumption. The Greek evidence from the site, on the other hand, has been linked to education. If so, then Greek educational methods would have been present in a place where traditional Egyptian knowledge and pursuits held sway. Regarding the Greek evidence from Tebtunis which

[115] Bresciani, Pernigotti, and Betrò, *Ostraka demotici da Narmuti I*, 2–3.

includes Homer, Euripides' *Phoenissae,* and a grammatical text among others, Hickey has argued, "that the priests learned Greek should not be a source of wonder, but how they appear to have been doing it – using the same techniques and texts, the *paideia,* that served to form and bind "Hellenic" elites across the Roman East – is surely noteworthy."[116]

3.3.3.4 Thebes

There are a number of exercises associated with the general area of Thebes, but their distribution is somewhat difficult to explain. A not insignificant portion of the approximately 300 demotic ostraca excavated at Deir el-Medina seem to be exercises, according to Devauchelle who has published most of the potential exercises.[117] Yet the areas in and around Karnak and the location of the priestly quarter have produced less.[118] Much material however has not been published and future work may shed more light on potential areas for scribal education.[119]

3.3.3.5 Other Potential Sites

As mentioned above, Amheida was the site of a clearly identified fourth century CE Greek school, but the site also contains archaeological remains dating from all

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[116] Todd Hickey, "Tebtunis on the Arno (and Beyond): 'Two Archives,'" in *100 anni di istituzioni Fiorentine per la papirologia : 1908 Societa Italiana per la ricerca dei Papiri 1928 Istituto Papirologico : atti del convegno internazionale di studi, Firenze, 12-13 giugno 2008*, ed. Guido Bastianini and Angelo Casanova (Florence: Istituto papirologico G. Vitelli, 2009), 78.
[117] Didier Devauchelle, "L'alphabet des oiseaux," in *A Good Scribe and an Exceedingly Wise Man: Studies in Honour of W.J. Tait*, ed. Aidan Dodson, J. J. Johnston, and W. Monkhouse, GHP Egyptology 21 (London: Golden House Publications, 2014), 62–63; Didier Devauchelle and Ghislaine Widmer, "Un peu de sagesse... Sentences sur ostraca demotiques," in *Honi soit qui mal y pense: Studien zum pharaonischen, griechish-römischen und spätantiken Ägypten zu Ehren von Heinz-Josef Thissen*, ed. Hermann Knuf, Christian Leitz, and Daniel von Recklinghausen, OLA 194 (Leuven: Peeters, 2010), 167–72.
[118] Devauchelle, "L'alphabet des oiseaux," 63.
[119] See Foy Scalf and Jacqueline Jay, "Oriental Institute Demotic Ostraca Online (OIDOO): Merging Text Publication and Research Tools," in *Acts of the Tenth International Congress of Demotic Studies. Leuven, 26-30 August 2008*, OLA 231 (Leuven: Peeters, 2014), 243–61.

Pharaonic periods up through the 4th century CE. A destroyed Late Period temple to Thoth, well attested through the blocks reused in the Roman temple (itself subsequently significantly disturbed), once stood at the site.[120] A stela of Seti II making offerings to Thoth suggests that a New Kingdom version of the temple also existed.[121] Most unusual however was the discovery of a New Kingdom *Kemyt* ostracon among the rubble of the Late Period temple.[122] The text is clearly a school exercise, not just on the basis of its content, but also given the presence of a memory mistake, the use of vertical red lines to separate the columns, and the inclusion of a date at the end of the passage. This ostracon has lead Kaper to suggest that a school was located in the vicinity of the New Kingdom temple of Thoth.[123] Despite no demotic exercises, there may have been a Late Period school and much later a Greek school. The final place to be briefly mentioned is Abydos. There is the O. Abydos Dem. 14, which was found in the passage of the cenotaph of Seti I at Abydos.[124]

3.4 Demotic Curriculum

The literary, documentary, and archaeological evidence does little to explain how demotic was taught. Therefore, the exercises themselves must be used as the main source of evidence. The only major criterion for classifying a text as an exercise must be

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[120] Olaf E. Kaper, "The Temples of the Late Period," in *An Oasis City*, ed. Roger S. Bagnall (New York: Institute for the Study of the Ancient World/NYU Press, 2015), 46–56.
[121] Olaf E. Kaper, "Textual and decorative evidence for the New Kingdom and the Third Intermediate Period," in *An Oasis City*, ed. Roger S. Bagnall (New York: Institute for the Study of the Ancient World/NYU Press, 2015), 42–46.
[122] Olaf E. Kaper, "A Kemyt Ostracon from Amheida, Dakhleh Oasis," *BIFAO* 110 (2010): 115–26; Kaper, "Textual and decorative evidence," 42–43. The ostracon is not the only example of Kemyt found outside of the Egyptian Nile valley proper. One was found at Kuban in Lower Nubia in 1930, see Walter B. Emery and L.P. Kirwan, *The Excavations and Survey between Wadi es-Sebua and Adindan 1929-1931* (Cairo: Government Press, 1935), 529.
[123] Kaper, "A Kemyt Ostracon," 125; Kaper, "Textual and decorative evidence," 42.
[124] Henri Frankfort, *The Cenotaph of Seti I at Abydos*, Egypt Exploration Society Memoir 39 (London: Egypt Exploration Society, 1933), 94.

content. Unlike New Kingdom literary exercises which occasionally bear dates, verse points, or colophons indicating their school function, there are no identifying external or structural features of demotic exercises. Many of the texts determined to be exercises on the basis of their content do share a similar stichic layout. However this is not restricted to exercises. Dream books and the Instruction of Onchsheshonqy are also written in a stichic arrangement.[125]

The issue of the hand is as problematic for demotic exercises as it is for New Kingdom ones. Most of the likely exercises are written in a competent hand with no indication that the scribe was still unsure about the formation of signs. Just as scholars have long speculated for the New Kingdom, the very first elementary writing exercises must have done in a manner or on a material that has not survived. It seems most likely that they were written on ostraca or papyri that were continually washed and reused,[126] although other possibilities such as wax tablets, wooden tablets, or even drawing in the sand exist.

Finally the question of material is far from conclusive. As the New Kingdom exercises have shown us, school texts can occur on either ostraca or papyri, depending on what was most available in a given location. Writing boards, while sometimes said to be associated with school exercises,[127] are poorly attested in the New Kingdom scribal

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[125] Quack speculates that the stichic arrangement originated in administrative texts and then spread to literary texts. Quack, "Ägyptische Listen und ihre Expansion in Unterricht und Repräsentation," 60.
[126] One wonders about the description in the Book of Thoth in which the disciple says, „I will wash off the scribal jars. I will wipe the scribal tablets (?). I will blow off the dust from the papyrus containers." Jasnow and Zauzich, *Conversations in the House of Life: a new translation of the Ancient Egyptian Book of Thoth*, 63. While this may have a ritual aspect and certainly ink containers and the like would need to be cleaned, it could also potentially refer to cleaning off materials used in practicing writing. Preserved in F01, 16-18; B06, 1/6-9 and C01,7 see Richard Jasnow and Karl-Theodor Zauzich, *The Ancient Egyptian Book of Thoth: a demotic discourse on knowledge and pendant to the classical hermetica* (Wiesbaden: Harrassowitz, 2005), 371–72.
[127] Pascal Vernus, „Schreibtafel," LÄ V, 704-10.

exercises, often have a hole thought to be used for display purposes, and not infrequently have administrative or literary texts. Material is therefore far from conclusive.

Imperfect and subjective though it is, content, with consideration for format, hand and material, remains the only possible means for identification. This has generally been accepted by most scholars.[128] Yet this criterion does not allow for a distinction between texts that students produced as part of their education and the texts used by teachers. The likelihood that some of the exercises included here were in fact models created by teachers[129] is discussed in each relevant section. All attestations known to me are collected in the tables at the end of the chapter.

3.4.1 Literary Texts

The New Kingdom practice of using both Middle Egyptian classical literary texts and Late Egyptian administrative models in scribal education does not seem to be paralleled by the demotic evidence. Neither the Middle Egyptian classics nor Late Egyptian wisdom or narrative literature were copied into the Greco-Roman Period. The classics were still copied into perhaps the 26th Dynasty, and occasionally quotations of earlier material have been preserved in a handful of Ptolemaic texts.[130] While a few elite

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[128] Devauchelle says, "En effet, seuls le contenu et la forme du texte relevé sur un ostracon ou un papyrus peuvent nous convaincre qu'il s'agit d'un document scolaire. Aucune indication particulière n'est fournie et la qualité souvent médiocre de l'écriture ne peut que rarement être retenue comme un critère déterminant." Didier Devauchelle, "Comment enseignait-on le démotique?," *Égypte. Afrique & Orient* 26 (2002): 21–28. This is also de facto the logic behind the identification of Saqqara exercises Ray, *Demotic Ostraca*, 5–10.; the survey of the school system in Friedhelm Hoffmann, *Ägypten: Kultur und Lebenswelt in griechisch-römischer Zeit : eine Darstellung nach den demotischen Quellen* (Berlin: Akademie Verlag, 2000), 37–47. and the exercises survey by Emmanuel Tassier, "Demotische Schooloefeningen" (unpubl. diss., Katholieke Universiteit Leuven, 1986).Ray, *Demotic Ostraca*.

[129] Emmanuel Tassier, "Greek and Demotic School-Exercises," in *Life in a Multi-Cultural Society: Egypt from Cambyses to Constantine and Beyond*, ed. Janet H Johnson, SAOC 51 (Chicago: The Oriental Institute of the University of Chicago, 1992), 313.

[130] Richard Jasnow, "Remarks on Continuity in Egyptian Literary Tradition," in *Gold of Praise: Studies on Ancient Egypt in Honor of Edward F. Wente*, ed. Emily Teeter and John A. Larson, SAOC 58 (Chicago: The Oriental Institute of the University of Chicago, 1999), 193–210. Note also, Kaper, "A Kemyt

scribes were likely familiar with the older literary texts, generally they did not play a role in education in the Greco-Roman.

Nonetheless, demotic literary texts did form part of the curriculum (see Table 3.5 at the end of the chapter). Narrative and wisdom literature[131] in demotic is amply attested from the fourth century BCE though the second century CE. The number of papyri and ostraca with excerpts from these texts is dwarfed by comparable New Kingdom material, but it is far from unattested. A recent list of 15 literary exercises was compiled by Ryholt,[132] to which should be added the publication of three ostraca from Deir el-Medina and three texts from Saqqara.[133] Of the three Deir el-Medina ostraca, one contains a quote from Onchsheshonqy while the other two preserve vetitive sentences that I am inclined to see as quotes from an unknown wisdom text, although Devauchelle and Widmer naturally mention the possibility that they were grammatical exercises. Christina di Cerbo also mentions two fragments of Onchsheshonqy found at Tebtunis in 1997 and 1998.[134]

Noteworthy in format are three copies of a Petesis text—P. Carlsberg 424 (TM 56119), P. Carlsberg 499 (TM 56119), and P. Carlsberg 559+PSI inv. D 60 verso (TM 56181)—which show a progression from a single line to a poorly copied excerpt to a

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Ostracon"; Günter Vittmann, "Eine spätzeitliche Schülertafel aus dem Asasif," *Ägypten und Levante / Egypt and the Levant* 16 (2006): 187–93.

[131] See e.g., the overview in Kim Ryholt, "Late Period Literature," in *A Companion to Ancient Egypt*, vol. 2 (Chichester: Wiley-Blackwell, 2010), 709–31.

[132] Kim Ryholt, "A Sesostris Story in Demotic Egyptian and Demotic Literary Exercises (O. Leipzig UB 2217)," in *Honi soit qui mal y pense: Studien zum pharaonischen, griechish-römischen und spätantiken Ägypten zu Ehren von Heinz-Josef Thissen*, ed. Hermann Knuf, Christian Leitz, and Daniel von Recklinghausen, OLA 194 (Leuven: Peeters, 2010), 434–36.

[133] Devauchelle and Widmer, "Un peu de sagesse... Sentences sur ostraca demotiques"; Ray, *Demotic Ostraca* nos. 3, 11, and 18.

[134] Christina di Cerbo, "Neue demotische Texte aus Tebtynis. Überblick zu den demotischen Papyri der italienisch/französischen Ausgrabung in Tebtynis aus den Jahren 1997-2000," in *Res severa verum gaudium: Festschrift für Karl-Theodor Zauzich zum 65. Geburtstag am 8. Juni 2004*, ed. Friedhelm Hoffmann and Heinz-Josef Thissen, Studia demotica 6 (Leuven: Peeters, 2004), 118.

more carefully rendered excerpt.[135] This is illustrative of the difficulty in identifying exercises. Had a fragment of the carefully written excerpt been the only section to survive, there is every likelihood that it would be assumed to be a normal copy of a literary text, not the product of a student.

3.4.2 Writing Exercises

This is the most problematic category. A wide range of texts have been identified in their initial publications as "writing exercises" or "scribal exercises." These perhaps most fit Tait's complaint that "a text is often described as a writing exercise simply when it is difficult to see what other practical or aesthetic purpose it could have served."[136] I have excluded innumerable "writing exercises" that seem to have another plausible purpose, but some texts can hardly be explained otherwise.

The format of certain texts indicate their likely function as school exercises. DO Saqqara 6 contains a four line dedicatory inscription of the kind typically found on Saqqara stela.[137] Its presence on an ostracon and the irregular spacing, however, suggest it was at minimum a draft. After the dedication, a list of gods follows and bears no relation to the preceding section. The inclusion of the list gives the impression the entire ostracon was a school exercise. Similarly, the recto of ODK-LS 3 which contains a very brief letter seems to be a model letter because of the repetition of certain phrases and the fact that the verso is a mathematical exercise.[138]

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[135] Ryholt, *Narrative Literature*, 157–70.
[136] Tait, "Aspects of Demotic Education," 937.
[137] Ray, *Demotic Ostraca*, 45–47.
[138] Didier Devauchelle, "Remarques sur les méthodes d'enseignement du démotique (À propos d'ostraca du Centre Franco-Égyptien d'Étude des Temples de Karnak)," in *Grammata Demotika: Festschrift für Erich Lüddeckens zum 15. Juni 1983*, ed. Heinz Josef Thissen and Karl-Th. Zauzich (Würzburg: Gisela Zauzich Verlag, 1984), 51–52.

Several model letters are attested.[139] Zauzich has shown that in second column on the verso of P. Berlin 13639, which contains a grammatical exercise, consists of a series of 5 short letters, each separated by a spatium. Another potential example of multiple model letters on a papyrus is P. Suzuki Collection d 2.[140] Certain other texts—P. Cairo 50084, 31235, and 31245--contain typical letter expressions, such as wishes for good health. Even the verso of ODK-LS 2 frag A appears to contain two lines of epistolographic phrasing.

3.4.3 Lists

Perhaps the best attested category of scribal exercise is the list. Text classed under this category range from simple to more complex. There is an organizational element to all lists that were scribal exercises. As has already been discussed in the previous chapter, the use of initial sound and occasional an alphabetic sequence of those initial sounds were used in lists. This practice extended beyond school exercises and was also used as an organizational method in a dramatical papyrus.[141] Nonetheless, many of the alphabetic texts were likely school exercises. In particular, P. Berlin 23861 with its list of individual alphabetic signs was almost certainly an elementary school exercise.

The simplest lists likely formed a basic elementary curriculum. Two ostraca, O. Strasb. dem. 5 and O. Leiden 487, from the late Ptolemaic or early Roman period list

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[139] Mark Depauw, *The Demotic Letter: A Study of Epistolographic Scribal Traditions against their Intra- and Intercultural Background*, Demotische Studien 14 (Sommerhausen: Gisela Zauzich Verlag, 2006), 316–17. Karl-Th. Zauzich, "Demotische Musterbriefe," in *Acts of the Seventh International Conference of Demotic Studies, Copenhagen, 23-27 August 1999*, ed. Kim Ryholt, CNI Publications 27 (Copenhagen: Museum Tusculanum Press, 2002), 395–401.
[140] Richard Jasnow et al., *The Demotic and Hieratic Papyri in the Suzuki Collection of Tokai University* (Atlanta: Lockwood Press, 2016), 26–27.
[141] François Gaudard, "Le P. Berlin 8278 et ses fragments. Un 'nouveau' texte démotique comprenant des noms de lettres," in *Verba manent. Recueil d'études dédiées à Dimitri Meeks par ses collègues et amis*, ed. Isabelle Régen and Servajean Frédéric, CENiM 2 (Montpellier: Université Paul Valéry, 2009), 165–69.

body parts in the exact same order (eye, nose, mouth, tooth, tongue). Another list with a slightly different order (tongue, eye, tooth,…) appears on a papyrus fragment in Florence.[142] The repetition of the order in the two ostraca suggest that they followed the same model. Both were from Thebes, whereas the Florence fragment is likely from Tebtunis. This may indicate that while the same types of exercises were practiced throughout Egypt, individual location traditions governed the details.

Body parts in particular may have been suited to a list format because magical and religious lists of body parts, in which each body part is associated with a god (Gliedervergötterung), were quite common.[143] The lists usually have an internal order that mimics the organization of the body, i.e. from head to toe, as is also suggested by the demotic exercises.[144] The pairing of gods with a body part also often has a lexical element. Gods are sometimes associated with body parts that sounded similar. For example *nḥbt* "neck" was linked to *Nḥb-kȝw* in P. Leiden I 348 and P. Chester Beatty VIII.[145] A semantic element also exists, linking the function of a body part to the function

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[142] Edda Bresciani, "Testi lessicali demotici inediti da Tebtuni presso l'Istituto," in *Grammata Demotika: Festschrift für Erich Lüddeckens zum 15. Juni 1983*, ed. Heinz Josef Thissen and Karl-Th. Zauzich (Würzburg: Gisela Zauzich Verlag, 1984), 4, frag. 4.

[143] Adhemar Massart, "A propos des 'listes' dans les textes égyptiens funéraires et magiques," *Studia biblica et orientalia* 3 (1959): 227–46. J.H. Walker, "Egyptian Medicine and the Gods," *BACE* 4 (1993): 83–86; James H. (James Harcourt)-1993 Walker, *Studies in ancient Egyptian anatomical terminology* (Warminster, Wiltshire: Aris and Phillips, 1996), 283–334; Nadine Guilhou, "Les parties du corps dans les textes de la pyramide d'Ounas, lecture rituelle et valeur symbolique," in *Études sur l'Ancien Empire et la nécropole de Saqqâra: dédiées à Jean-Philippe Lauer*, vol. 1, Orientalia Monspeliensia 9 (Montpellier: Université Paul Valéry, 1997), 221–31; Joachim Friedrich Quack, "Dekane und Gliedervergottung. Altägyptische Traditionen im Apokryphon Johannis," *Jahrbuch für Antike und Christentum* 38 (1995): 97–122; Terence DuQuesne, "La déification des parties du corps. Correspondances magique et identification avec les dieux dans l'Égypte ancienne," in *La magie en Égypte: à la recherche d'une définition; actes du colloque organisé par le Musée du Louvre les 29 et 30 septembre 2000*, ed. Yvan Koenig (Paris: La Documentation Française, 2002), 237–71; Rune Nyord, *Breathing flesh: conceptions of the body in the ancient Egyptian Coffin Texts*, CNIP 37 (Copenhagen: Museum Tusculanum Press, 2009), 510–23.

[144] This order is also found in lists of body parts in certain Books of Breathing, e.g. P. BM EA 10201, François René Herbin, *Books of breathing and related texts*, Catalogue of the Books of the Dead and other religious texts in the British Museum 4 (London: British Museum Press, 2008), 135–40.

[145] Massart, "A propos des 'listes,'" 244.

of a god; e.g. Re is associated with the head in CT 761 VI 391i and he is the ruler of the gods. Finally, grammatical gender seems to have played a role in the assignment of a deity to a body part, and as Walker stated, "the gender of the deity nearly always conforms to the gender of the Egyptian word which denotes a particular body part."[146]

The body part lists belong to a broader category of word lists. The term "word list" is used here to refer to those lists of words which were scribal exercises. Other lists of words, here referred to as "onomastica,"[147] were not school texts, but rather scholarly productions, consisting of long, beautifully written lists of vocabulary, materia sacra, and toponyms. They were typically written in hieratic by professional scribes, recorded priestly knowledge, and were stored in temple libraries. For a more detailed discussion of these onomastica, see chapter 4. Moreover, a number of texts that have been called "lists" in their original publications have been excluded. I have excluded all lists with quantities, measurements or dates associated with the entries, as these are likely account. I have also excluded all lists for which there is not a clear unifying element (initial sound, determinative, etc.), as these may be other types of texts.[148]

Other demotic lists of words, however, were likely produced by scribal students. Three Carlsberg papyri contain lists of professions: P. Carlsberg 23, P. Carlsberg, 450, and P. Carlsberg 455. Two lists of metal objects are also noteworthy. The first is a second century CE list, P. Carlsberg 41a, and the second an early demotic list, P. Suzuki

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[146] Walker, "Egyptian Medicine and the Gods," 84.
[147] Note that the term "onomastica" does not imply that the lists were lists of proper names or personal names. The term is used in the Egyptological sense of a long word lists organized by topic, see Gardiner, *AEO*, 5.
[148] See for example, P. Carlsberg 42+44+45+453, Alexandra von Lieven, "Die mysteriöse Geschichte von den Wortlisten, die Ritualnotizen waren (pCarlsberg 42+44+45+453)," in *Res severa verum gaudium: Festschrift für Karl-Theodor Zauzich zum 65. Geburtstag am 8. Juni 2004*, ed. Friedhelm Hoffmann and Heinz Josef Thissen, Studia demotica 6 (Leuven: Peeters, 2004), 369–87.

Collection d 4.[149] There are several correspondences between the two lists, despite the centuries separating them. Interestingly, the latter includes several entries for objects that occur in the Apis Ritual, yet the papyrus itself is a palimpsest. It shows evidence of having been washed not just once, but many times. This, along with the unusually large handwriting points to a scribal exercise, but its content bears undeniable cultic implications, as well as quasi-hieratic writing.

Several texts record lists of months or days. As letters, legal texts, and many other texts were typically dated, this was no doubt an eminently practical exercise. An ostracon from Deir el-Medina (O. dem. DelM 4-1) records the epagomenal days. Several texts list the months. In particular, O. Bucheum dem. 110 consists of a heading ("the months, to wit:"), the twelve months in order, and then just before the ostracon breaks off, it reads "the birds, to wit:." This clearly links the lists of months with the lists of birds in alphabetic order as seen in O. dem. DelM 4-2. P. Berlin 23861 also had traces of month list. That two different texts had both month lists and alphabetic lists indicates that they belonged to the same stage of education.

Personal name lists are fairly well attested. Here it is necessary to make a distinction among the various manuscripts. The sheer length of the demotisches Namenbuch, its alphabetical organization, and its use of headings and closing for each section suggest that it was produced by a professional scribe, although the large hand is odd.[150] It may have a teacher's model or even a reference book for name formation. The Cairo name list (P. Cairo 31169) further suggests the possibility of a teaching model

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[149] Jasnow et al., *The Demotic and Hieratic Papyri in the Suzuki Collection of Tokai University*, 29–33.
[150] K.-Th. Zauzich, "Ein antikes demotisches Namenbuch," in *The Carlsberg Papyri 3: A Miscellany of Demotic Texts and Studies*, ed. P. J. Frandsen and Kim Ryholt, CNI Publications 22 (Copenhagen: Museum Tusculanum Press, 2000), 33.

given that it includes a list of toponyms and divine names.[151] The toponyms might even have a parallel in a demotic ostracon, Ashmolean D.O. 956.[152] In contrast, two short Saqqara ostraca, DO Saqqara 20 and DO Saqqara 21, most closely resemble New Kingdom name lists that were scribal exercises. The first includes a title "the names of the overseers, to wit:,"[153] followed by four names in the pattern *pȝ-dȝ*-DN, which suggests they do not in fact refer to real people.[154] The latter also preserves names of the same pattern and its hand is sufficiently awkward that it was likely written by a student.[155]

3.4.4 Grammatical Exercises

The grammatical exercises were certainly a part of curriculum, yet not all the exercises may have been produced by students. P. Carlsberg 12 and P. Vienna D6464 each contain multiple grammatical exercises and are written in fluid, confident demotic. The former also includes an alphabetic word list. Rather than understanding them as the product of a student, it seems far more plausible that they were collections of exercises which teachers could use as models.[156] In this way, they might be comparable to the demotisches Namenbuch and P. Cairo 31169. The demotic ostraca containing a single exercise, such as O. Ashmol. 726, are more likely candidates for student work.[157]

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[151] Wilhelm Spiegelberg, *Die demotischen Denkmäler (30601–31270; 50001–50022). II. Die demotischen Papyrus*, Catalogue général des antiquités égyptiennes du Musée du Caire, 28,2 (Strassburg: Buchdruckerei M. Dumont Schauberg, 1908), 270–79.
[152] Mark Smith, "Four Demotic Ostraca in the Collection of the Ashmolean Museum," *Enchoria* 16 (1988): 84.
[153] Similar to the Keftiu writing board which has the heading *ỉrt rn.w nw Kftyw*. Fischer-Elfert suggests that this heading might refer to the general activity of writing personal name lists, Hans-Werner Fischer-Elfert, "'Namen bilden' (ir.t-rnw). Ein Beitrag zur paradigmatischen Anthroponymie des Neuen Reiches," Forthcoming.
[154] Ray, *Demotic Ostraca*, 91.
[155] Somewhat oddly, the hieroglyph *nfr* is written next to the list. Ray, tongue in cheek, suggests that it was "written either by the scribe, who would have had an exaggerated opinion of his achievement, or by the teacher, who we can only assume must have been in a kind mood." Ibid., 93.
[156] Tassier suggests that they were "grammatical treatises," Tassier, "Greek and Demotic School-Exercises," 313.
[157] See Example 2.3.

It is also important to note that just because paradigms are often early stage exercises in modern language instruction, this was not necessarily true for the ancient world. Under the Greek model, students would have already completed the elementary stages of instruction in reading and writing including Homeric commentary before engaging in the study of grammar.[158] Similarly, Old Babylonian grammatical texts do not occur on school tablets, but rather on tablets associated with literary texts.[159] They were a product of intellectual scribal circles, not elementary education.

3.4.5 Bilingual Exercises

Around the second century CE, a new type of text occurs: texts glossed in Greek letters or words. As Egyptian contains consonants not present Greek, special signs are used to represent those sounds. When these extra signs are used alongside Greek letters, the script is called Old Coptic. In P. München o. Nr., a list of demotic personal names is glossed.[160] In line x+3, *ʿnḫ-pȝ-ỉ-ỉr-dỉ=s* is glossed with ϭαρτες, and in line x+6, *ʿḥ-ḥp* is glossed with αλε⸗επε. The two h-sounds which do not occur in Greek are represented by the demotic uniliteral sign. The major advantage Greek has over demotic is that it writes vowels, which allows the complete pronunciation of the word to be expressed.

An otherwise unparalleled type of text is represented by PSI 16 1616. It is a list of body parts (see 3.4.3) in both Greek and demotic:

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[158] Cribiore, *Writing, Teachers, and Students*, 52–53.
[159] Velduis compares the Nippur exercise tablets, which contain lexical lists, and the Nippur grammatical tablets and concludes that "Grammatical lists, therefore, were not used to introduce Sumerian grammar in an elementary phase of education. They were copied by pupils or scribes who already had a considerable knowledge of Sumerian." Niek Veldhuis, "Grammatical texts in their intellectual contexts," *Acta Sumerologica* 22 (2005): 235.
[160] Wilhelm Spiegelberg, *Demotica II*, Sitzungsberichte der Bayerischen Akademie der Wissenschaften, Philosophisch-Philologische und Historische Klasse, Abh. 2 (München: Bayerische Akademie der Wissenschaften, 1928), 44–49.

ⲟⲫⲣ]ⲩⲥ	ꜣnḥ[161]	eyebrow
ⲟⲫⲑ]ⲁⲗⲙⲟⲥ	ỉr.t	eye
ⲣⲓ]ⲥ̣	šy	nose
ⲥⲧⲟ]ⲙ̣ⲁ	rꜣ	mouth
ⲱ̣ⲧ̣ⲁ̣	msṯe (?) [162]	ear (?)
ⲭ̣ⲉ̣ⲓⲗⲟⲥ	spt	lips
ⲱⲙ̣ⲟⲥ	špḥ (?)[163]	shoulder
ⲙ̣ⲁ̣ⲥ̣ⲧⲟⲥ	mnt	breast
ⲥ̣ⲧ̣ⲏⲑⲟⲥ	šnby (?)	breast
ⲟ̣ⲙⲫⲁ̣ⲗⲟⲥ	ḫlpy	navel
ⲧ̣ⲣ̣ⲁⲭⲏⲗ̣[ⲟ]ⲥ̣	mṯy	throat (?)[164]
…	…	?[165]

While lists of body parts do occur in demotic exercises, Menci notes that the Greek handwriting is professional and that it is unclear whether this should represent a school exercise or the product of an expert scribe.[166] It is also impossible to tell what language the writer or user of the text preferred and in which direction the list was meant to be used. It seems possible that the list could be for a native Greek speaker learning demotic perhaps for the purposes of medicine or a native demotic speaker learning Greek. Thus although this may represent a Greek-demotic school exercise, too little is known about the context in which it was used to say with any certainty.

The largest source for texts with this type of interaction between Egyptian and Greek is Narmouthis. The vast majority of the Narmouthis ostraca have been excluded from this for the reasons stated above, but the glossed ostraca do merit a particular

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[161] Erichsen, *Glossar*, 5
[162] This is not at all the typical orthography for *msḏr* "ear," but it might be an alphabetic spelling. See examples on CDD M 242.
[163] Menci suggests *špḥ* as a phonetic writing of *ḥpš* "shoulder."
[164] The Greek is clearly "throat," but the Demotic entry most closely resembles the word mt "vessel, muscles" in Glossar, 184; see also CDD M 263.
[165] Menci reads κ]α[ρδια and *ḥ/ꜣ.t* here, but the traces are so faint, that I am skeptical.
[166] Giovanna Menci, "1616. Glossario Demotico-Greco," in *Papiri della Società Italiana : volume sedicesimo, (PXI XVI), ni 1575-1653*, ed. Guido Bastianini, Francesca Maltomini, and Gabriella Messeri, Edizioni dell'Istituto papirologico "G. Vittelli" 1 (Florence: Firenze University Press, 2013), 158–60.

discussion. Most of the glossed ostraca contain hieratic words with Greek/Old Coptic transcription. Two ostraca, OMM 1063+204 and OMM 1367, have hieratic words with Old Coptic and demotic transcriptions. The presence of hieratic in the ostraca complicates how they should be understood. As hieratic was the domain of priestly elites, it is unlikely that an elementary student would be writing exercises in hieratic. However, hieratic religious texts were almost always written on papyri. The most logical explanation for these ostraca is that they were pronunciation notes for priestly scribes who recited and performed the religious rituals, whose texts were typically written in hieratic. The Old Coptic and demotic transcriptions have a parallel in the Tebtunis Onomasticon, which also contains both types of pronunciation notes (see chapter 4).

3.3.6 Other

To my knowledge there are only two examples of sign practice in demotic. A small ostracon, DO Saqqara 9, excavated at Saqqara has twelve versions of the same sign, a demotic *p* or *ỉn* sign.[167] In the midst of the *p/ỉn* signs, an *m-ỉr* is written. The second, BM EA 86596, consists of eight lines with the same sign, apparently a *g,* written over and over.[168] Thus the demotic evidence, just like the New Kingdom exercises, seems to be curiously missing most examples of the most elementary writing exercises.

It is necessary to briefly mention that numbers and basic mathematics were certainly also part of the scribal curriculum. An investigation into the demotic mathematical practices is beyond the scope of this work. However, in Table 3.8 at the end of the chapter, a list of published demotic mathematical exercises is given. A link

[167] Ray, *Demotic Ostraca*, 53.
[168] Mohamed A.-H. Nur el-Din, "Some Demotic school exercises," *ASAE* 71 (1987): 203–4.

between elementary demotic exercises and numbers is clear from the alphabetic texts. O. dem. DelM 4-2 functioned as practice for the alphabetic order, the numbers associated with that order (i.e. 1-9), and the bird names themselves.[169] Perhaps the choice of the first nine sounds of the alphabet was deliberate because the scribe would then practice writing the numbers 1-9. These numbers also occur as part of writing larger numbers, so the exercise could have been doubly effective.

3.5 Hieratic, Hieroglyphs, and Middle Egyptian

The linguistic environment of the Greco-Roman period was fragmented and complex. Middle Egyptian, demotic and Greek all played a role in textual production of the period and for the two Egyptian stages of the language, three potential scripts could be used. Middle Egyptian, hieratic, and hieroglyphs, however, were the province of experts. Literate Egyptian scribes would have been able to read and write demotic, but many may have been semi-literate at best in the other scripts. There is no evidence to suggest that scribal novices learned or attempted to learn the classical elements of the language and writing in the elementary stages of education. In terms of script, this conforms to New Kingdom practice, when scribal education focused on hieratic but not hieroglyphs. Instead, hieratic, hieroglyphs and Middle Egyptian belonged to an advanced stage of scribal practice and education. The division of demotic and the classical forms is implied in the literary descriptions. Si-osiris attends school as a child and presumably learns demotic, but due to his prodigious perspicacity, he becomes akin to an advanced scribe who can read the writings, i.e. the hieratic writings, in the House of Life.

[169] Devauchelle, "L'alphabet des oiseaux," 62.

Two ostraca, presumably from the Greco-Roman period,[170] do show drawings of hieroglyphs. ODK-LS 5 has drawings of the two wadjet eyes, a *wsḫ*-collar, a scarab sign, a djed-pillar, a tit-knot, and a menat counterpoise. ODK-NMB 1 has three versions of the *m*-owl hieroglyph. Devauchelle argues they are "sans doute d'exercices d'apprentissage des hièroglyphes et des symboles religieux dans une école où on apprenait aussi le démotique."[171] On the basis of these two ostraca, this is too strong a statement. ODK-LS 5 may have functioned in some kind of amuletic manner or even simply been the drawings of an artist not a scribe. Without more confirmation that hieroglyphs were practiced, little more can be said.

The situation for hieratic presents the same problems. The Narmouthis glossed hieratic ostraca mentioned above come from a murky context and may just have likely been the products of temple scribes as that of apprentices. At this stage, the evidence does not clearly explain how scribes acquired hieratic and hieroglyphic competence. The possibility that scribes simply carefully copied hieratic manuscripts in order to gain familiarity with the system cannot be eliminated.

The absence of Middle Egyptian paradigms or exercises must be addressed. Recently, Alexandra von Lieven has argued that the grammar of a text should indicate its time of composition, a position she describes as "historic linguistic dating."[172] She asserts

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[170] Though published by Devauchelle in an article on demotic education, he curiously gives no date. As they are drawings of hieroglyphic signs, palaeography cannot be used to establish a date. Devauchelle does mention that they were excavated at the same time as some demotic ostraca, however none of the demotic ostraca in the article are dated either. They at least by paleography are likely Ptolemaic. Devauchelle, "Méthodes d'enseignement," 52.

[171] Ibid., 55.

[172] For the full argument, see Alexandra von Lieven, *Grundriss des Laufes der Sterne: das sogenannte Nutbuch*, Carlsberg Papyri 8 (Copenhagen: Museum Tusculanum Press, 2007), 223–50. Her argument is summarized in Alexandra von Lieven, "Why Should We Date Texts by Historic Linguistic Dating?," in *Dating Egyptian Literary Texts*, ed. Gerald Moers et al., Lingua Aegyptia, Studia Monographica 11 (Hamburg: Widmaier Verlag, 2013), 161–76.

that the Egyptians did not maintain the older stages of the language in a productive sense and thus any trace of an older form indicates transmission from an older manuscript composed at a time when such forms were the everyday language. A key part of her argument lies in the absence of evidence for grammatical training in the older forms of the language. As she states, "in other words, the grammatical training is attested for the spoken language of the respective period, but not for the ancient stage of the language for which it would have been much more necessary, if an active competence and not just a reading ability was tried (*sic*) to obtain."[173]

Her point that there is no evidence for purely grammatical education of Middle Egyptian or even Old Egyptian in the later periods is certainly valid. However, there is also no evidence for such activities from the periods in which those were the spoken languages. The larger question is once paradigms and other grammatical exercises were adopted within scribal circles at some point in the New Kingdom and with much greater frequency in the later periods, why would scribes not apply this new approach to earlier stages of the language which were still maintained in religious and prestige texts? The aversion to grammatical exercises for Earlier Egyptian (i.e. Middle Egyptian and Old Egyptian) may be due to two factors. The first is that grammatical exercises were not considered appropriate for Earlier Egyptian. The second is that Earlier Egyptian was not suited to grammatical paradigms.

The first issue may be a holdover from the development of Egyptian scribal education. In the New Kingdom, the predominant means of instruction in Middle Egyptian was through copying of literary texts, but lists, model letters, and the like were

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[173] von Lieven, "Why Should We Date Texts by Historic Linguistic Dating?," 162.

in Late Egyptian. Presumably, the copying of Middle Egyptian literary texts as the core of scribal education dates back to the Middle Kingdom. Thus the weight of educational tradition for Middle Egyptian texts rested on a method that did not rely on grammatical exercises, yet demonstrably produced competent scribes. Even when scribal norms changed for the vernacular stages of the language at first during the New Kingdom with the advent of Late Egyptian and then again with development of demotic in the Late Period, traditional methods could have held sway for archaic texts.

The second issue derives from the nature of the grammatical forms in Earlier Egyptian and the Egyptian writing system. All native Egyptian scripts—hieroglyphs, hieratic, and demotic—write only the consonants.[174] While this did not affect the Egyptians ability to write clear texts or learn to write, it does result in a plethora of ambiguous forms.[175] Verbal forms in Earlier Egyptian are produced synthetically, i.e. through changes within the word. In the cases where the distinguishing feature involves consonants, this poses no problem (e.g. *sḏm=f* vs. *sḏm.n=f*), but for many verbal forms the key distinctions lie in the vowels obscured by the consonantal nature of the writing system. No form better exemplifies this issue than the Earlier Egyptian *sḏm=f*, which has been the subject of intense debate for decades. Some scholars argue the form *sḏm=f* represents only two morphologically distinct forms,[176] while others argue it masks upwards of six morphologically distinct forms.[177] In contrast, Later Egyptian (Late

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[174] Certain weak consonants occasionally do indicate the presence of vowels, but their nature is typically ambiguous.
[175] James P. Allen, *The Ancient Egyptian Language: An Historical Study* (Cambridge: Cambridge University Press, 2013), 4–5.
[176] Most recently, James P. Allen, "Rethinking the sḏm.f," *LingAeg* 19 (2011): 1–16.
[177] Marc Brose, "Darf es noch ein sḏm=f mehr sein? Zur aktuellen Diskussion über die Anzahl von schriftsprachlich kennzeichenlosen finiten Verbalformen im Älteren Ägyptisch," *LingAeg* 23 (2015): 1–59. Brose also provides a summary of all the recent and relevant arguments.

Egyptian, Demotic, and Coptic) is more explicit in its written grammatical forms, because grammatical information is encoded in particles and auxiliaries separate from the lexical verb. As the grammatical exercises of the New Kingdom and later concentrate heavily on the auxiliaries, the Egyptians might have perceived the format of grammatical exercises as productive only for later Egyptian.

There is one clear piece of evidence for the training of scribes in hieratic, but curiously comes from a Greek context. A second century report in Greek describes the following:

> "Marsisouchos son of … and Thenkebkis, having given proof of a knowledge of hieratic and Egyptian writing from a hieratic book produced by the sacred scribes in accordance with the memorandum on the 12th…"[178]

The implication of this record is that official standards for competency in various levels of literacy and writing existed. Unfortunately, no Egyptian texts make any mention of certificates or tests related to literacy.

3.6 Greek Influence and the Bilingual Environment

During the three centuries between Psamtik's reassertion of native Egyptian political control in the seventh century BCE and the Alexander's conquest, native Greek speaking mercenaries established a presence in Egypt.[179] Waves of mercenaries settled in Egypt, as well as supported Egyptian rebellions against Persia.[180] Archaeological evidence supports the literary accounts of Greeks in Egypt and close interaction and even

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[178] P. Tebt. II 291 (TM 13454), 40-45: Μ[α]||[ρσι]σοῦχ[ο]ς Μαρ[. . . .]ς μητρὸς Θ[εν]κή[β]κιος | [ἀπ]όδ̣ε̣ιξιν δοὺς τοῦ ἐπίστασθαι [ἱε]ρατικὰ | [καὶ] Αἰγύπτια γράμ[ματ]α ἐξ ἧς οἱ ἱερογραμματεῖς | προήνεγκαν(*) βίβλου ἱερατικῆς [ἀκο]λούθως | τῷ γενομένῳ ὑπομνήματι τῇ ιβ τοῦ | Τῦβι...; see Ulrich Wilcken, *Grundzüge und Chrestomathie der Papyruskunde. Zweite Hälfte: Chrestomathie* (Leipzig and Berlin: B.G. Teubner, 1912), 163.

[179] Herodotus claims that Psamtik I had interpreters taught Greek, Her. His. II, 154.2.

[180] Christelle Fischer-Bovet, *Army and Society in Ptolemaic Egypt* (Cambridge: Cambridge University Press, 2014), 17–20.

marriage occurred between the foreign mercenaries and Egyptian women.[181] By the mid-third century BCE, the total number of Greeks in Egypt was probably around 200,000, 5% of a population of four million.[182]

The Greek language only gradually became integrated into daily life on an official level.[183] For the early Ptolemaic Period, demotic remained the language of law and administration. Official intervention in language use is barely attested,[184] but the requirement of a Greek summary for registered documents around 146 BCE and the "Amnesty Agreement" of 118 in which the language (Greek or demotic) determined the court and laws which applied do indicate the establishment of a language policy.[185] Yet individuals could function both in Greek and Egyptian spheres, bearing double names for each given social context.[186] Even the temples, which were the bastions of traditional Egyptian culture, were not cut off from the increasing Greek influence. Egyptians with priestly titles were integrated into Ptolemaic institutions, as the attestations of priest-soldiers in the Ptolemaic period makes clear.[187] The direction of influence did not just flow from Greek to Egyptian, but the reverse as well. There is a Greek letter from the second century BCE from a woman to a male recipient who is a doctor:

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[181] Diodorus 1.67-68. Dorothy J. Thompson, *Memphis under the Ptolemies*, 2nd ed (Princeton [N.J.]: Princeton University Press, 2012); Günther Vittmann, *Ägypten und die Fremden im ersten vorchristlichen Jahrtausend* (Mainz am Rhein: P. von Zabern, 2003), 239–48.
[182] Fischer-Bovet, *Army and Society in Ptolemaic Egypt*, 170.
[183] Dorothy J. Thompson, "The multilingual environment of Persian and Ptolemaic Egypt: Egyptian, Aramaic, and Greek Documentation," in *The Oxford Handbook of Papyrology*, ed. Roger Bagnall (Oxford: Oxford University Press, 2009), 395–417; Emilio Crespo, "Language Policies," ed. Georgios K. Giannakis, *Encyclopedia of Ancient Greek Language and Linguistics* (Leiden: Brill Online, 2013).
[184] Crespo, "Language Policies."
[185] Emily Cole, "Interpretation and Authority: The Social Function of Translation in Ancient Egypt" (Dissertation, UCLA, 2015), 236.
[186] Marja Vierros, *Bilingual Notaries in Hellenistic Egypt: a study of Greek as a second language*, Collectanea Hellenistica 5 (Brussels: Publikatie van het Comité Klassieke Studies, Subcomité Hellenisme, Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten, 2012); Yanne Broux, *Double Names and Elite Strategy in Roman Egypt*, Studia Hellenistica 54 (Leuven: Peeters, 2015).
[187] Fischer-Bovet, *Army and Society in Ptolemaic Egypt*, 303–62.

> "Discovering that you are learning the Egyptian letters (i.e. demotic), I was delighted for you and for myself, because now when you come to the city you will teach the slave boys in the establishment of Phalou… the enema doctor, and you will have a means of support of old age."[188]

Clearly the recipient of the letter was a native Greek speaker and acquired some proficiency in demotic in order to pursue a medical career. While native Greek speakers who learned Egyptian were in the minority, native Egyptian languages and knowledge held onto their cultural relevance into the second century CE.

The Roman Period ushered in significant changes in language use. In the earlier Ptolemaic Period, Egyptian notary scribes wrote official legal documents in demotic and then registered them with the Greek administration at local grapheion offices.[189] By the late first century BCE, Greek subscriptions replaced demotic witness statements as the means of certifying demotic contracts. These bilingual contracts in turn fell out of use by the first century CE and purely Greek contracts became the norm. Brian Muhs has shown that although the hereditary notary offices disappear by the early Roman Period, "hellenized" Egyptian officials were responsible both for the Greek and demotic portions of the bilingual documents.[190] In other words, the increasing prominence of Greek as a legal language did not mean that Egyptian scribes were replaced by Greek officials, but that the native demotic-speaking population acquired literacy in Greek. Most if not all

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[188] UPZ I.148 (TM 3540). πυνθανομένη μανθά|νειν σε Αἰγύπτια | γράμματα συνεχάρην σοι | καὶ ἐμαυτῆι, ὅτι | νῦγ γε παραγενόμενος | εἰς τὴν πόλιν διδάξεις | παρα Φαλου. . ῆτι \ἰατροκλύστηι/ τὰ | παιδάρια καὶ ἕξεις | ἐφόδιον εἰς τὸ γῆρας. Translation from Bagnall and Cribiore, *Women's Letters from Ancient Egypt, 300 BC-AD 800*, 113. For a discussion of the content and context of the letter, see Roger Rémondon, "Problèmes du Bilinguisme dans l'Égypte Lagide (U.P.Z. I, 148)," *Chronique d'Égypte* 39 (1964): 126–46.
[189] Brian Muhs, "The Grapheion and the Disappearance of Demotic Contracts in Early Roman Tebtynis and Soknopaiou Nesos," in *Tebtynis und Soknopaiu Nesos: Leben im römerzeitlichen Fajum. Akten des Internationalen Symposions vom 11. bis 13. Dezember 2003 in Sommerhausen bei Würzburg* (Wiesbaden: Harrassowitz, 2005), 93–104; Zauzich, *Die ägyptische Schreibertradition in Aufbau, Sprache und Schrift der demotischen Kaufverträge aus ptolemäischer Zeit*.
[190] Muhs, "The Grapheion and the Disappearance of Demotic Contracts in Early Roman Tebtynis and Soknopaiou Nesos," 100.

literate Egyptian priests may have had some training in Greek by the first-second centuries CE. Ample opportunity existed for Egyptians to have been exposed to Greek schooling practices and incorporate elements into the Egyptian process. But did they?

I contend that there is little to no evidence that supports Greek influence on demotic schooling in the Ptolemaic Period and minimal evidence for the Roman Period. The demotic grammatical exercises are traditionally seen as a by-product of Greek influence.[191] While both Johnson and Tassier have pointed out that grammatical paradigms date back to the New Kingdom,[192] the idea of Greek influence is curiously persistent and Uljas as recently as 2013 asserted that the demotic grammatical evidence "bears testimony to a new perception of language following the integration of Egypt into the Hellenistic world and the introduction of Greek grammatical thought."[193] The timeline of demotic evidence and Greek evidence simply does not support Uljas' statement. First of all, the grammatical exercises reveal a perception of language as divisible into distinct syntactic units, but as discussed in the previous chapter, New Kingdom personal name lists also indicate an awareness of how units of language combine together. Similarly, the paradigms have direct New Kingdom predecessors. The two New Kingdom paradigms do not imply that such exercises were widespread during that period, but they do attest to the existence of the concept centuries before any significant Greek presence in Egypt. Second, the earliest dates for Greek grammatical philosophy are around the second century BCE, but Greek grammatical exercises

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[191] Brunner, Uljas, etc.
[192] Janet H. Johnson, "Ancient Egyptian Linguistics," in *History of Linguistics. Volume I: The Eastern Traditions of Linguistics*, ed. Giulio Lepschy (London: Longman, 1994), 70; Tassier, "Greek and Demotic School-Exercises," 313.
[193] Toivari-Viitala, "Deir el-Medina," 5.

themselves are not attested until first or second century CE.[194] In contrast, multiple Egyptian grammatical texts are dated to the Ptolemaic Period and the formal structure of demotic paradigms even at that early stage suggests that an established tradition already existed.

The elementary stages of Greek education, in particular the alphabets and syllabaries, in comparison to the "alphabetical" demotic exercises expose the fundamental differences between the two scripts. Given that Greek used a true alphabet and that alphabet included vowels meant that the formation of letters and the written combination of consonants and vowels provided a foundation for student to learn written forms. But the demotic script neither writes vowels nor uses an alphabet. Written forms are composed of signs of greater or lesser complexity that may represent anywhere from one to three consonants originally, of which none or all may still be pronounced in contemporaneous speech. The demotic "alphabetical" exercises clearly grapple with the potential divide between written and pronounced language since the diverse signs that share an intimal sound are grouped together. As tempting as it may be to see the lists of demotic uniliteral signs as "alphabetical" analogies to the Greek alphabetical exercises, they are not a separate system from the bulk of other demotic signs and are used in concert with and not in opposition to the multiliteral signs.

In practice, the Greek language on the one hand and the native Egyptian languages and scripts on the other remained isolated from each other. The use of the languages in non-educational settings confirms this. Proportionally speaking, few Greek

[194] As has also been pointed out in Tassier, "Greek and Demotic School-Exercises," 313.

loanwords occur in demotic texts.[195] With the exception of the Narmouthis ostraca and the magical papyri, bilingual Greek-demotic texts that are not official contracts are rare. By the Roman Period and perhaps also in the Ptolemaic Period, the production of Egyptian texts occurred in temple contexts, which are the centers of Egyptian culture not Hellenic culture. Similarly, no evidence suggests that the structure of Greek schooling ever influenced the Egyptian institution of the school. While individuals could and did interact with the two systems, the systems themselves stayed separate. However, the continuing bilingual environment and the increasing prominence of Greek did potentially influence demotic scribal practice in the Roman Period. The bilingual exercises mentioned above come from an unclear context and may have been the work of professional scribes and not students, but they do show the adoption of the Greek writing system to aide in pronunciation of Egyptian words. The bilingual word list is the only indication of potential demotic language and Greek *language* interaction in an "exercise", but again may derive from professional not school contexts. The true influence of the linguistic changes of the Roman Period may have been in the number of students educated in demotic, as opposed to the manner in which they were educated. There is no doubt that the temples maintained traditional Egyptian texts in demotic and the classical scripts well into the second century CE, but the administrative uses declined.

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[195] John David C. Ray, "How demotic is Demotic?," *Egitto e Vicino Oriente* 17 (1994): 251–64; Willy Clarysse, "Greek Loan-words in Demotic," in *Aspects of Demotic lexicography: acts of the Second International Conference for Demotic Studies, Leiden, 19-21 September 1984*, Studia demotica 1 (Leuven: Peeters, 1987), 9–33; Willy Clarysse, "Determinatives in Greek loan-words and proper names," in *Aspects of Demotic orthography: acts of an International Colloquium held in Trier, 8 Novermber 2010*, ed. S.P. Vleeming, Studia demotica 11 (Leuven: Peeters, 2013), 1–24.

3.7 Conclusion

The demotic school exercises parallel many of the same practices seen in the New Kingdom. Literary exercises, model letters, lists of personal names, and even individual sign exercises are all attested in both periods. The New Kingdom paradigms provide a direct forerunner to the demotic grammatical exercises and the personal names lists a conceptual forerunner. The alphabetical texts too may even have had a New Kingdom ancestor. Therefore the demotic curriculum should be seen as a natural development out of New Kingdom practices. But the introduction of demotic and the increasing specialization of hieratic for religious purposes affected the prevalence of certain types of exercises. The literary exercises which dominated the New Kingdom do have demotic parallels but in far smaller numbers. Moreover, the literary exercises from Greco-Roman period are demotic, as the Middle Egyptian literary exercises disappear in the Late Period. But Middle and Late Egyptian literary texts did not just disappear from the school exercises, they disappeared from the textual tradition entirely, so this was not just a change in curriculum but a broader cultural change.

The distribution of the school exercises and their relationships to each other illustrate that the curriculum was broadly the same across Egypt through the Greco-Roman period. Grammatical exercises, alphabetic texts, lists of various kinds, and literary exercises are all attested both in the north and south, from the Ptolemaic Period through the Roman period. Divergences in sequences, however, indicate that the specifics of scribal exercises were dictated by local traditions.[196] The three lists of body parts illustrate the same sequences in the two Theban ostraca, but a different order in the

[196] Chronological development is of course also likely, but the evidence is too sparse for any conclusions.

Tebtunis (?) papyrus. Similarly, the use of the bird alphabet as an organizational device in the dramatical papyrus and the numbering of birds in the two exercises demonstrate standardization, but the sequences across all the alphabetic texts betray variations. The best explanation for this is that different standardized orders existed in different places.[197]

The existence of specific local scribal traditions also appears in records of Egyptian notary offices. Carolin Arlt has shown that there were different models of education, training, and succession at notary offices in Memphis and various cities in the Fayum.[198] For example, notary scribes had long tenures, the office was often hereditary, and the scribe in office likely trained his successor in Tebtunis, Memphis and Upper Egypt. But at Hawara and Philadelphia, all advanced scribes might have been trained as notaries and the official notary scribe chosen from a pool.

The picture of demotic education that emerges from the evidence is one of continuity with earlier Egyptian practices, but which was also dependent on local traditions. The major change from the earlier periods was that the elementary stage of education focused on demotic, but not classical scripts or languages, which belonged to a far more poorly attested advanced stage. Although the archaeological evidence is not definitive, the educational process for demotic was likely centered at the *physical* location of the temple, as well as a product of the *institution* of the temple. Greek pedagogy, while contemporaneous with demotic schooling, existed parallel to but did not directly affect the content of the demotic curriculum.

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[197] Quack, "Ägyptische Listen und ihre Expansion in Unterricht und Repräsentation."
[198] Carolin Arlt, "Egyptian Notary Offices in the Ptolemaic Fayyum," in *Graeco-Roman Fayum: Texts and Archaeology. Proceedings of the Third International Fayum Symposion, Freudenstadt, May 29-June 1, 2007* (Wiesbaden: Harrassowitz, 2008), 15–26.

Table 3.5
Literary exercises in Demotic[199]

Inventory Number/Publication	TM Number	Date	Provenance	Material	Contents
BM 50627	88980	Roman	Deir el-Bahri	ostracon (pottery)	Beginning of unknown literary text
Cairo JE 50444	130031	?	Karnak	ostracon (pottery)	Unpublished
Carlsberg 424	56119	1st-2nd century CE	Tebtunis	papyrus	Prophecy of Petesis excerpt
Carlsberg 499	56119	1st-2nd century CE	Tebtunis	papyrus	Prophecy of Petesis excerpt
Carlsberg 559+PSI inv. D 60	56119	1st-2nd century CE	Tebutnis	papyrus	Prophecy of Petesis excerpt
Deir el-Medina, O. dem. DeM 1-1	N/A	Ptolemaic	Deir el-Medina	ostracon (potsherd)	Several maxims one of which is a copy of Onchsheshonqy 14, 16
Deir el-Medina, O. dem. DeM 1-2	N/A	Early Roman	Deir el-Medina	ostracon (potsherd)	Excerpt from a wisdom text (9 lines)
el-Kab O. 5.T.004	56169	Ptolemaic	el-Kab	ostracon (pottery)	Onchsheshonqy excerpt
Fitzwilliam Mus. E. GA. Tablet 4695.1943	51407	early Ptolemaic	?	tablet (limestone)	Inaros story excerpt
IFAO O. dem. 890	56177	early Roman	Edfu	ostracon (pottery)	Naneferkasokar and the Babylonians excerpt

[199] Largely drawn from the list in Kim Ryholt, "A Sesostris Story in Demotic Egyptian and Demotic Literary Exercises (O. Leipzig UB 2217)," in *Honi soit qui mal y pense: Studien zum pharaonischen, griechish-römischen und spätantiken Ägypten zu Ehren von Heinz-Josef Thissen*, ed. Hermann Knuf, Christian Leitz, and Daniel von Recklinghausen, OLA 194 (Leuven: Peeters, 2010), 429–434.

Krugtexte	56175, 56102, 56103, 56184, 56185, 51237	Roman	?	jar (pottery)	Several excerpts and potentially complete stories
Leipzig UB 2216	92680	?	?	ostracon (pottery)	Unpublished
Leipzig UB 2217	88986	BC 1st cent-AD 1st cent.	?	ostracon (pottery)	Sesostris story excerpt (5 lines)
Louvre O. dem. 598=E 9250	N/A	Greco-Roman	?	ostracon (pottery	Excerpt from a wisdom text (9 lines)
Medinet Habu O. 4038	51398	2nd century CE	Medinet Habu	jar (pottery)	Gardening agreement (satirical literary text)
Saqqara DO 3	N/A	4th/3rd cent. BC	Saqqara, sector 3	ostracon (pottery)	Opening of a Setne-story (8+ lines)
Saqqara DO 11	N/A	second half of the Ptolemaic period	Saqqara, Sacred Animal Necropolis, sector 4	ostracon (potsherd)	Lines from a narrative involving magic (7 lines)
Saqqara DO 18	N/A	4th/3rd century BC	Saqqara, Sacred Animal Necropolis	writing board (limestone)	Excerpt/beginning of a literary/mythological text
Strasbourg Bibl. Nat. D 1994 (Tablet Spiegelberg)	52211	early Ptolemaic	?	tablet (limestone)	Excerpts from several stories
Vienna O. dem. 70	N/A	early Roman (?)	?	ostracon (pottery)	Excerpt with similarities to harpist poem

Table 3.6
Writing Exercises in Demotic

Inventory Number/Publication	TM Number	Date	Provenance	Material	Contents
BM EA 86596	56133	Ptolemaic (?)	Thebes (?)	ostracon (potsherd)	*g* sign practice
Cairo CG 31238	48691	Persian	Saqqara	papyrus	word repetition, sentence fragments
Cairo 38258	52212	205 BCE	?	limestone tablet	model letter (?)
Demotica II 30	48767	1st century CE	?	papyrus	list of demotic names with Greek transcriptions
Karnak O. Dem. LS 3 recto	56186	Roman(?)	Karnak	ostracon (potsherd)	model letter (?)
ODN 17; OMM 694+650+817	50156	late 2nd century CE	Narmouthis (Medinet Madi)	ostracon (potsherd)	hieroglyphic word exercise with Demotic and Greek
ODN 32; OMM 872	50173	late 2nd century CE	Narmouthis (Medinet Madi)	ostracon (potsherd)	hieratic word exercise with Old Coptic transcription
ODN 35; OMM 1316	50174	late 2nd century CE	Narmouthis (Medinet Madi)	ostracon (potsherd)	hieratic word exercise with Old Coptic transcription
ODN 36; OMM 1311	50175	late 2nd century CE	Narmouthis (Medinet Madi)	ostracon (potsherd)	hieratic word exercise with Old Coptic transcription
ODN 37; OMM 1063+204	50176	late 2nd century CE	Narmouthis (Medinet Madi)	ostracon (potsherd)	hieratic word exercise with Old Coptic and demotic transcription

ODN 38; OMM 1367	50177	late 2nd century CE	Narmouthis (Medinet Madi)	ostracon (potsherd)	hieratic word exercise with Old Coptic and demotic transcription
ODN 39; OMM 1263	50178	late 2nd century CE	Narmouthis (Medinet Madi)	ostracon (potsherd)	hieratic word exercise with Old Coptic transcription
ODN 40; OMM 1323	50179	late 2nd century CE	Narmouthis (Medinet Madi)	ostracon (potsherd)	hieratic word exercise with Greek transcription
ODN 41; OMM 1454	50180	late 2nd century CE	Narmouthis (Medinet Madi)	ostracon (potsherd)	hieratic word exercise with Old Coptic transcription
Saqqara DO 6	-	second half of the Ptolemaic period	Saqqara, sectors 4 and 5	ostracon (potsherd)	draft/practice of a dedicatory inscription with a list of gods
Saqqara DO 8	-	second half of the Ptolemaic period	Saqqara , sector 4 and 5	ostracon (potsherd)	stichic sentences (possibly magical formulae)
Saqqara DO 9		Ptolemaic	Saqqara, sector 7	ostracon (potsherd)	*p/in* sign practice
Saqqara DO 10	-	first half of the Ptolemaic period	Saqqara, sector 7	ostracon (potsherd)	sentence of unclear nature (perhaps a literary exercises)
Suzuki Collection d 2		early demotic	?	papyrus	series of model letters (?)

Table 3.7
List Exercises in Demotic

Inventory Number/Publication	TM Number	Date	Provenance	Material	Contents
Abydos O. 14	97713	Roman	Abydos	potsherd	list of botanical terms
Ashmolean dem. 956	51130	1st century CE	?	ostracon (potsherd)	geographical list
Berlin 23572	50135	Ptolemaic	Elephantine	papyrus	occupation list
Berlin 23861*	56106	1st-2nd century AD	?	papyrus	list of individual letters, traces of a month list
Bodl. Eg. Inscr. O. Dem. 300	58209	Roman (?)	?	ostracon (potsherd)	list of months, in order
Bucheum O. dem. 110	48957	Roman (?)	Hermonthis	ostracon (potsherd)	list of months, in order
Cairo JE 12461	56130	Ptolemaic	?	ostracon (potsherd)	days of the month
Carlsberg 23	46022	Ptolemaic	Tebtunis (?)	papyrus	list of occupations
Carlsberg 41a	56002	2nd century CE	Tebtunis	papyrus	list of metal objects
Carlsberg 41b	56003	2nd century CE	Tebtunis	papyrus	list of zodiac signs (?)
Carlsberg 450	56112	2nd-3rd century CE	Tebtunis	papyrus	list of occupations
Carlsberg 451	56113	2nd century CE	Tebtunis	papyrus	list of epithets of Horus (?)
Carlsberg 455	56117	2nd century CE	Tebtunis	papyrus	list of occupations
Deir el-Medina, O DeM 4-1	N/A	Ptolemaic (?)	Deir el-Medina	ostracon (potsherd)	list of epagomenal days

Florence PSI inv. without no./Bresciani, Fs. Lüddeckens, no. 4	89422	Roman (?)	Tebtunis	papyrus	list of body parts
Leiden O. Dem. 487	49513	Roman	Thebes	ostracon (potsherd)	list of body parts
Saqqara DO 7	-	mid Ptolemaic	Saqqara, sector 3	ostracon (potsherd)	list of months
Saqqara DO 20	-	early Ptolemaic period	Saqqara, Sacred Animal Necropolis	alabaster or calcite	list of overseer names, all starting with the element *p³-dj²*
Saqqara DO 21	-	early Ptolemaic Period	Saqqara, Sacred Animal Necropolis	limestone	list of names, all starting with the element *p³-dj²*
Strasb. O. dem. 5	52208	Ptolemaic	Thebes(?)	ostracon (potsherd)	list of body parts
Suzuki Collection d 4	N/A	Early demotic	?	papyrus	list of metal objects
Tebt. Tait 21	56009	2nd century CE	Tebtunis	papyrus	list of words with the cloth determinative
Uppsala O. dem. 1627	50747	Ptolemaic	?	ostracon (potsherd)	list of months, in order

Table 3.8
Arithmatic/Mathematical Exercises in Demotic

Inventory Number/Publication	TM Number	Date	Provenance	Material	Contents
Berlin P. 12264	51858	Roman	Upper Egypt	ostracon (potsherd)	sequential numbers
BM 19652	51769	Ptolemaic	Thebes (Karnak)	ostracon (potsherd)	doubling
Clermont-Ganneau O. 207	112845	Early Ptolemaic	Elephantine	ostracon (potsherd)	fractions (the 1/3 of x)
Elkab O. dem. 5.T.005	56170	Ptolemaic (?)	El-Kab	ostracon (potsherd)	sequential (?) numbers
Karnak O. Dem. LS 3 verso	56186	Roman(?)	Karnak	ostracon (potsherd)	addition
Pisa O. dem. Priv. (EVO 4, 1981, 197)	51367	3rd century BCE	?	tablet (limestone)	fractions (the 1/2 of x)
Saqqara DO 23	N/A	Ptolemaic	Saqqara, Sacred Animal Necropolis	limestone	division references
Saqqara DO 30	N/A	Ptolemaic	Saqqara, Sacred Animal Necropolis	ostracon (potsherd)	fractions
Uppsala O. dem. 2272	51450	Roman	?	ostracon (potsherd)	fractions

CHAPTER 4. ONOMASTICA AND SIGN LISTS

The previous chapters have concentrated primarily on demotic texts deriving from the school environment, but now I turn to texts concerned with the elements of classical writing and their function in scholarly, temple contexts. Even more so than the demotic evidence, the hieratic onomastica and the hieroglyphic/hieratic sign lists show clear engagement on the part of priestly scribes with their own language and writing system. These texts are highly structured, annotated, scholarly works created by and for elite temple scribes.

Unfortunately, this hieratic and hieroglyphic evidence does not solve the question of how the classical language was taught. These texts do however reflect the types of knowledge that an elite Egyptian priest would have mastered, if not the process by which that occurred. As with the demotic schooling material, onomastica and sign lists reflect an increased level of systemization and an adaptation to the changing linguistic landscape. Both this chapter and the next demonstrate that the onomastica and sign lists functioned on the one hand as repositories of sacred knowledge and on the other as functional reference books that assisted scribes in the activities of the temple scriptorium.

Below I present the organization and format of the Tebutnis Onomasticon, the Schøyen Tablet, the Tanis Sign Papyrus, and P. Carlsberg 7. Through an analysis of their internal organization and comparisons to other scholarly texts, I demonstrate that they do not just transmit a list of things, but also information regarding orthography, semantic nuances and phonetic value. Both this information and the actual content of the lists, I contend, constitute sacred knowledge. Woven through these technical texts is a tension

between the visual aspect of the written form and its potential meanings on the one hand and the phonetic value realized in pronunciation on the other hand.

4.1 Texts

The texts discussed here can generally be classified as lists. However, there are some structural and functional differences between the lists discussed as part of the school curriculum and the onomastica and sign lists under consideration here. The term onomasticon was coined by Gardiner in his publication[1] of three texts from the Pharaonic period: the Ramesseum Onomasticon, the Onomasticon of Amenemope, and the University College Writing Board.[2] These Middle Kingdom and New Kingdom exemplars are essentially literary texts and the Onomasticon of Amenemope was titled a *sbȝyt* "teaching," the typical designation of a wisdom text or school text. The inclusion of a title in Amenemope and the writing board, the separation of determinative from base word and stichic format in the Ramesseum Onomasticon, and the use of rubrics in Amenemope all indicate a level of formal organization. The Roman Period texts considered here are likely the descendants of this tradition and contain many more formal elements of organization than the demotic wordlists. Ultimately, the difference between the demotic lists and the hieratic/hieroglyphic lists is not truly one of kind but of degree; all fall on a continuum from less to more complex. Nonetheless, the term makes a useful distinction for the later periods to suggest the different contexts in which the lists were likely used. Wordlists belong to the realm of schooling and the onomastica to the elite

[1] Alan Gardiner, *Ancient Egyptian Onomastica* (Oxford: Oxford University Press, 1947).
[2] A potential Old Kingdom parallel are the writing boards from Giza, see Edward Brovarski, "Two Old Kingdom Writing Boards from Giza," *ASAE* 71 (1987): 27–52; John Baines, "An Abydos List of Gods," in *Pyramid Studies and Other Essays Presented to I.E.S. Edwards*, ed. John Baines et al., Occasional Publications 7 (London: Egypt Exploration Society, 1988), 124–33.

priestly circles. This division should not be seen as strict however. There must have been overlap between the two, as temples were the most likely site for scribal education in the Greco-Roman Period, but pin pointing evidence for the early stages of hieratic and hieroglyphic education is elusive. Potentially, the onomastica were used as teaching manuals or even as a type of final exam demonstrating a scribe's mastery of the material. An advanced scribe, perhaps even a disciple who was about to be initiated into the secrets of the House of Life and who had mastered the scribal arts as is described in the Book of Thoth, could have studied or even created such texts. The Book of Thoth may even directly reference the mastery of the disciple over knowledge contained in hieroglyphic manuals: "he drinks from the Book of Order, the Book of the Mother of the Signs, and the Book of Honoring their (=the signs') Father who is Powerful."[3]

4.1.1 Tebtunis Onomasticon and the Schøyen Tablet

The Tebtunis onomasticon, P. Carlsberg 180,[4] is a second century CE hieratic document from the Tebtunis temple library, fragments of which are now housed in Copenhagen, Berlin, and Florence.[5] Initially published by Jürgen Osing in 1998, the text consists of four parts: a list of verbs, a list of substantives, a handbook on materia sacra, and a handbook on the calendar. The text is extensive, perhaps originally over 10m in length, but is sadly fragmentary now. Few sections have more than two or three consecutive lines fully preserved. Nearly every entry in the first two parts of the

[3] B02, 3/14-15; Richard Jasnow and Karl-Theodor Zauzich, *The Ancient Egyptian Book of Thoth: a demotic discourse on knowledge and pendant to the classical hermetica* (Wiesbaden: Harrassowitz, 2005), 191–92; Richard Jasnow and Karl-Theodor Zauzich, *Conversations in the House of Life: a new translation of the Ancient Egyptian Book of Thoth* (Wiesbaden: Harrassowitz, 2014), 99.
[4] TM 56092. Berlin, P. 10465 + Berlin, P. 14475 + Copenhagen, Carlsberg P. 180 + Florence, Istituto Papirologico 'G. Vitelli' PSI inv. I 76.
[5] Discussion of its provenance, see Jürgen Osing, *The Carlsberg Papyri 2: Hieratische Papyri aus Tebtunis 1*, CNI Publications 17 (Copenhagen: Museum Tusculanum Press, 1998), 19–23.

onomasticon and many entries in the handbook sections have supralinear glosses in demotic and/or Old Coptic.

The creation of the Tebtunis onomasticon occurred in two stages. The first consisted of the base hieratic text, including the red hieratic rubra. The second consisted of a later addition of the demotic and Old Coptic glosses above the relevant words and phrases. On the basis of the paleography and parallels to the similarly glossed magical papyri, Osing estimates that the main text was written in the middle of the second century CE and the glosses were added some period of time later in the second half of the second century CE.[6]

The initial section of the onomasticon containing verbs is particularly interesting because regardless of date, no other onomasticon or word list currently published contains a list of verbs, or any other part of speech other than substantives. Nonetheless, Osing was aware of two possible unpublished parallels to the verb list, both scribal tablets and both containing verbs of motion.[7] They still remain unpublished today, but are currently being edited by Fischer-Elfert.[8] One of them, a wooden tablet from the Schøyen Collection, MS 189, is available through a photograph on the Schøyen collection's website.[9] By paleography, it dates to the Roman Period just like the Tebtunis text, but perhaps slightly earlier, first century CE. Unfortunately, the tablet's provenance is unknown. Regarding the second tablet, even less is known. Both Osing and Fischer-Elfert cite Graefe for additional information and note that apparently the tablet was from TT34

[6] Ibid., 42.
[7] Ibid., 80.
[8] Hans-Werner Fischer-Elfert, "Walk Like an Egyptian: Verben der Bewegung in altägyptischer Erklärung," Forthcoming. I would like to thank Prof. Fischer-Elfert for generously sharing the preliminary results of his work with me.
[9] http://www.Schøyencollection.com/papyri-ostraca-collection/hieratic/papyrus-dictionary-ms-189

indicating that it had a Theban origin.[10] Once again, this suggests that this type of text was a national phenomenon, not the product of a single local tradition.

The Schøyen tablet and the Tebtunis onomasticon are indisputably linked. The tablet contains a list of verbs, most with the walking legs determinative and, in parallel, a section of the Tebtunis text (Frag. H) also contains verbs with the walking legs determinative. Moreover, key formatting elements in the two texts are virtually identical. In the Tebtunis papyrus, the text is highly structured. It employs gridlines to define the columns and rows. Supralinear glosses in both demotic and in old Coptic are inserted throughout the text to supply the pronunciation. And most importantly, it employs four main commentary marks to separate entries in the list, all of which are written in red: *ỉr* "as for, concerning", *ky-ḏd* "variant, another reading", a ditto mark (represented in the transliterations as ›), and a verse point (represented with °). The Schøyen tablet is slightly different. It is course, far shorter and written on a wooden tablet as opposed to papyrus, and it lacks grid lines or verse points. But the tablet does have the other three major commentary marks: *ỉr* "as for, concerning," *ky-ḏd* "another reading," and the ditto mark; and it has a handful of supralinear notes. The basic form of an entry in both texts is identical: a focus word, typically an archaic word unattested in demotic, is introduced by *ỉr* "as for, concerning"; a better attested synonym comes directly after it; a series of semantically linked words or phrases usually separated by *ky-ḏd*, the ditto mark or a verse point follows:

[10] See Osing, *Hieratische Papyri aus Tebtunis 1*, 80.

Example 4.1 Schøyen Tablet, recto, x+2

ỉr šmỉy wꜤr ḫtỉ › šny
As for wander: flee; rove about;[11] › pass by[12]

The uncommon term *šmỉy*, attested in the Pyramid Texts and medical texts[13] but not in demotic, is followed by the far better attested *wꜤr* which is used continuously from the Middle Kingdom through the Greco-Roman period, occurs at Edfu, and is attested in demotic.[14] Two more verbs from the same semantic range follow. This arrangement is seen throughout the Schøyen Tablet and the Tebtunis Onomasticon. The similarities in the commentary marks, their use and distribution, as well as the content itself are such that the two texts almost certainly had a shared purpose and function.

4.1.2 Tanis Sign Papyrus and P. Carlsberg 7

Both the Tanis Sign Papyrus[15] and P. Carlsberg 7[16] have been briefly mentioned in Chapter 2 as texts with alphabetical organization. However their formal layout is significantly more complex than just alphabetical order. The Tanis Sign Papyrus only employs alphabetical organization for just over two columns out of an approximate total of thirty. For the Carlsberg papyrus, while the entire papyrus, of which only two badly damaged columns survived, likely did follow an alphabetical organization, it also features many of the same commentary marks as seen in the Tebtunis Onomasticon and the

[11] This may be *ḫtỉ* "to turn back, draw back, repel" Wb 3, 342.15-343.6, but see *ḫtỉ* Wb 3, 349.15
[12] *šny* is unclear. The sign could be read as *znỉ* "to pass, go by" Wb. 3, 454-455.
[13] Wb. 4, 470.
[14] Wb. 1, 286.8-20; occurs in the noun form at Edfu, Wilson, Ptolemaic Lexikon, 215-16; *Glossar* 96, CDD W 131.
[15] F. Ll. Griffith and William Flinders Petrie, *Two hieroglyphic papyri from Tanis*, Memoir of the Egypt Exploration Fund 9 (London: Trübner & Co., 1889).
[16] Erik Iversen, *Papyrus Carlsberg Nr. VII. Fragments of a Hieroglyphic Dictionary*, Historisk-filologiske Skrifter 3, no. 2 (Copenhagen: Ejnar Munksgaard, 1958). Quack will publish a new edition of the text in a forthcoming work. He has also identified several small fragments which join with the main text. See Joachim Quack, "Die spätägyptische Alphabetreihenfolge und das 'südsemitische' Alphabet," *LingAeg* 11 (2003): 164, n. 7.

Schøyen tablet. Both display tabular gridlines and the texts can be read both horizontally for an explanation of an individual sign and vertically to find other related signs.

The Tanis Sign Papyrus was discovered with many other papyri. Although the structure in which Petrie discovered the papyri and other finds was given a number, house 35, he apparently made no map of the structure and currently its exact location is unknown, as well as its relationship to the rest of the site.[17] Petrie ascribed the house to a private individual named Ashaikhet (*ꜥš-iḫy*), whom he mistakenly identified as Bakakhuiu due to a misreading of the name on a statue.[18] But was this structure a private house, an administrative building, or a construction affiliated with the temple? Unfortunately, it is impossible to know at this point. Despite this uncertainty, it is certain that along with the Tanis Sign Papyrus, another significant list was also discovered, the Tanis Geographical Papyrus. These two remarkable documents were not alone, as Petrie also found innumerable other carbonized papyrus fragments, none of which have ever been published.

P. Carlsberg 7 belongs to the Tebtunis Temple Library, just like the Tebtunis Onomasticon. The presence of both lists in the temple library suggests that lexical and graphic reference books formed part of the collection. In other words, both sign papyri were almost certainly part of a scholarly collection of reference books. Their location

[17] It is possible that the structure was destroyed after Petrie's excavation since the northern area was used by local villagers as a source of building material. Christiane Zivie-Coche, *Tanis 3: Statues et autobiographies de dignitaires : Tanis à l'époque ptolémaïque*, Mission des fouilles de Tanis 3 (Paris: Cybèle, 2004), 73–74.

[18] The demotic inscription on the statue was reread by Vleeming as *wsir ꜥš-iḫy* "the Osiris, Ashaikhy." See S. P. Vleeming, *Some coins of Artaxerxes and other short texts in the Demotic script found on various objects and gathered from many publications*, Studia demotica 5 (Leuven: Peeters, 2001), 89–90; William Flinders Petrie, *Tanis I: 1883-1884*, Memoir of the Egypt Exploration Fund 2 (London: Egypt Exploration Society, 1885), 41–49.

speaks to the type of people who would have created and used them—priestly scribes—and the context in which they were used—a scholarly/temple library.

4.3 Internal Organization

A close analysis of the internal organization for the onomastica and sign-lists reveals the preoccupation of the lists with orthography, lexical nuance, and pronunciation. The Tebtunis Onomasticon is roughly organized by semantic field. Although *ỉr* "as for, concerns" marks the beginning of each section containing semantically linked entries, often multiple sections are also semantically linked in a more general manner. For example, the nouns on fragments K1-K4 generally relate to time. Example 4.1 occurs in the middle of a fragment in which all entries relate to aspects of the day or night. The hieratic text is written in normal font, the demotic glosses in italics, and the rubrics in red.

Example 4.1 Tebtunis Onomasticon, K3/9-13

bky *tȝwy*
9) *JR* bkȝ ° dwȝw °
ⲛⲏⲁⲡ[…] *n tȝ* *syȝy*
10) *[…]* nhp *DD-R* n ḏt › sȝ yᶜ ›
[…] ḥr *nb=f* *ḥr ỉt.t*
11) nw [n] ḥr › grḥ-nb=f ° ḥḏ-tȝ °
[…] qbḥ *wn-pt*
12) sʿšʾ qbḥ wn ~~ḏȝ~~ pt
tȝ=f ḫt=f *tȝwy rhwy*
13) ḏt=f ḫ[t]=f dwȝw rwhȝ

9) As for morning:° morning°
10) […]; morning; that is: morning; › after breakfast ›
11) time of preparation; › night of his lord; ° daybreak (lit. brightening the land) °
12) opening of the *qbḥ* waters; opening of the sky
13) morning and evening; morning and evening

The section begins in typical fashion with a relatively archaic[19] word for "morning", *bk3*, followed by a better attested synonym, *dw3*. However, the focus word *bk3* is written unusually and there are several reasons to believe that this is significant. Osing transcribes the hieratic word for *bk3* "morning" as [𓅱𓍿]𓄡𓎛𓀁. The restored beginning is assured by the demotic gloss, but the end of the word including the determinative is fully preserved. I suggest that rather than read the determinative as the seated child following Osing, it is better to read it as the very similar looking sign for the seated pregnant woman (B2),[20] so [𓅱𓍿]𓄡𓎛𓀀. With this reading, the word is virtually identical to the writing of the verb *bk3* "to be pregnant" 𓅱𓍿𓀀. The determinative is key for distinguishing these two words, as the normal writing for *bk3* "morning' is e.g. 𓅱𓍿𓇋. However, it is not too unusual for determinatives to be mixed up. In the case of *bk3*, there is a significant instance where *bk3* "morning" is written with the determinative from *bk3* "to be pregnant." In the New Kingdom Osireion of Seti I at Abydos,[21] the word *bk3* "morning" is written with the pregnant woman determinative: 𓅱𓍿𓀀.[22] This particular instance is so important because the text of Osireion belongs the *Book of Nut,* which was not only still in circulation in the first-second century CE, but verifiably present at Tebtunis in a commented version, P. Carlsberg 1 and 1a.[23] Unfortunately the Carlsberg copies are broken in this section, so we cannot verify that some version of the word *bk3*

[19] By archaic, I generally mean a word that does not occur in demotic. However, the nature of the textual corpus in demotic is such that this is ultimately a subjective term and as more and more texts are published, terms thought to be archaic now, may turn out to have more modern currency that expected.
[20] Compare Möller, Paleographie, 32 vs. 65.
[21] Henri Frankfort, *The Cenotaph of Seti I at Abydos*, Egypt Exploration Society Memoir 39 (London: Egypt Exploration Society, 1933).
[22] See the synoptic text in Alexandra von Lieven, *Grundriss des Laufes der Sterne: das sogenannte Nutbuch*, Carlsberg Papyri 8 (Copenhagen: Museum Tusculanum Press, 2007), §63.
[23] Ibid. Moreover, the second word in the list *dw3w* "morning" is also attested in hieratic in the *Book of Nut,* §30, as well as part of the demotic translation and commentary, §6 and 20.

survived into the Roman Period copies of the texts. However both words are also contemporaneously attested at Edfu with their expected determinatives, so the word was in limited circulation.[24] It is reasonable to assume that the scribe of the Tebtunis Onomasticon, or a Vorlage, was aware of this unusual spelling and the potential for confusion between both *bkꜣ* words. Thus the reason for including *bkꜣ* "morning" as a focus word may be due as much to the word's relative rarity and obsolesce,[25] as to its idiosyncratic orthography.

The glosses in Example 4.1 illustrate that their primary function was to aid in pronunciation, but necessarily add an additional layer of meaning. The demotic gloss above *nw [n] ḥr* "time of preparation" uses the demotic spelling of the name of Horus, *ḥr,* to indicate the pronunciation of *ḥr* "preparation." An identical use occurs in J5, 14 where the verb *ḥr* "to be prepared" is glossed with demotic *ḥr* "Horus." There is no indication that this gloss was intended to associate the word *ḥr* "preparation, to be prepared" with the god. Rather *ḥr* "to be prepared" and *ḥr* "Horus" must have been homophones. The purpose of the glosses was purely to clarify the pronunciation.

A complex layering of semantic nuance does appear in the entries themselves. The entries in K3/9-10 are all more or less synonyms for morning. The reasons for the varying use of the verse points[26] and ditto marks is elusive. Similarly, the inclusion of *ḏd-r* "that is" is exceptional, as *ky-ḏd* occurs far more frequently. In fact this is the only

[24] Wilson, *Ptolemaic Lexikon*, 334.
[25] With the exception of the Osirieon attestation, the word appears to be restricted to the Pyramid Texts until the Greco Roman Period. See Wb. I 481. Von Lieven even suggests that the Book of Nut itself may have had its origins in the Old Kingdom.
[26] Nikolaus Tacke, *Verspunkte als Gliederungsmittel in ramessidischen Schülerhandschriften*, Studien zur Archäologie und Geschichte Altägyptens 22 (Heidelberg: Heidelberger Orientverlag, 2001).

instance of *ḏd-r*;[27] but there is no convincing explanation for its use other than that it may represent a separate manuscript tradition. Following Osing, I agree that it is simply impossible to interpret its meaning on the basis of a single use.[28] The final lines of the sections reveal that the links between the focus word and other entries are not always as simple as "synonym." In K3/13, the term *grḥ-nb=f* "night of his lord" occurs. The only other attestation is at Edfu in an equally unclear context. It seems inescapable though that the term refers to night since *grḥ* "night" is traditional word for "night." Thus, *grḥ-nb=f* appears to be an antonym. There are parallels instances where antonyms are occasionally included in various sections. In Fragment A1/15-17, the verbs *sḫp* "to build,"[29] *ḫtỉ* "to carve,"[30] and *ḫnr* "to scatter"[31] are clustered together despite the fact that they can hardly be considered synonyms. The final line of the section also does not have a simple equivalency with *bkȝ* "morning." There are not commentary marks to indicate if the words are separate entries or should be grouped together as the translation implies. Given that *ḏt=f ḫt=f* (literally "his body, his stomach") occurs as a set phrase in the Greco-Roman period to mean morning and evening with the implication of always,[32] it is likely that the line should be divided into two units, each meaning "morning and evening." But "morning and evening" is hardly a synonym for "morning." Instead of seeing the entries in each section as synonyms, it is better to see them as semantically related where the nature of the relationship might vary. This creates a web of associations and analogies between the entries.

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[27] CDD D 3.
[28] Osing, *Hieratische Papyri aus Tebtunis 1*, 37.
[29] Wb 4, 18.4; Wilson, Ptol. Lexikon, 798.
[30] Wb 3, 347.16-348.12.
[31] Wb 3, 298.8-14.
[32] Wilson, Ptolemaic Lexikon, 1250.

A similar nuanced presentation of lexical relationships and the importance of orthography can be illustrated through a comparison of a section from the verb list in the Tebtunis Onomasticon and the recto of the Schøyen Tablet. First, the division of verbs and nouns in the Tebtunis text and the exclusive use of verbs in the Schøyen tablet suggest that the scribes perceived both a distinction between verbs and nouns and that that distinction was relevant to the arrangement and purpose of the text. This agrees with the evidence from the demotic grammatical exercises that suggest an understanding of syntactic units.

But despite this divide, the format and structure of the verb section is essentially identical to that of the substantive section in the Tebtunis onomasticon. And in fact, the form of the verbs was that of a noun--the infinitive. We know this for two reasons. First, while hieratic spellings, particularly late ones, can be notoriously ambiguous on verbal form, the Old Coptic glosses which supply full vocalic pronunciation are not. And every preserved Old Coptic gloss in the verb section of the Tebtunis text indicates a pronunciation that matches the later Coptic infinitival form, with the exception of one stative.[33] Second, while the distinctive infinitival "t" ending on third weak verbs is not always reliably written, the verb *rdỉ* "to cause" when followed by another verb is typically written as *dỉt*. And in fact this construction occurs in Fragment E 8 of the Tebtunis text and also on the recto, line x+10 of the Schøyen text.

In both of the examples with *rdỉ*, there is a small "cross" (x) that appears between the *dỉt* and the following verb in both these examples. This mark only occurs in this

[33] Osing, *Hieratische Papyri aus Tebtunis 1*, 61.

manner in a small group of texts,[34] as far as I am aware: the Tebtunis Onomasticon and two related priestly manuals,[35] the Schøyen tablet, and a first-second century CE Osiris Liturgy from Tebtunis. For the Osiris liturgy, while it was originally suggested that the mark might indicate a drumstrike,[36] Friedhelm Hoffmann has shown that the cross marks an accent unit, a colon,[37] indicating that it may have been an aid in pronunciation.[38] It occurs regularly throughout the Tebtunis onomasticon, particularly in the substantive section. Here, while it may have also aided in pronunciation, Osing notes that it is used to indicate two closely tied words, often words in a direct genitive or in an attributive relationship. For example, it occurs in Frag. J 21/1 *st-ꜣḫt* "place of fields", Frag. K 1/11 *hrw-ꜣbd* "month-day", and Frag. U23 *štw-dšr* "red turtles." It also occurs when a phrase is forced to continue onto the next line to indicate that the two sections are part of a single entry.[39]

In the verb lists, it is used in a similar, but far more restricted way. It indicates a close verb-object relationship. In the Tebtunis Onomasticon, it marks the following verb-object pairs: *ỉdḥ nwḥ* "to pull a line" [Fr. J 11, 12]; *wdᶜ-mdw* "to judge" (lit: separate words) [Fr. J 3,13]; and *ḫtm-sbꜣ* "to seal the door" [Fr. D 3,1]. And on the recto of the Schøyen tablet, we find: *nḏḏs-r* "?" (line x+8), *tnbḫ-rdwy* "to turn aside the legs" (line

[34] See also the remarks in Sandra Lippert, *Ein demotisches juristisches Lehrbuch: Untersuchungen zu Papyrus Berlin P 23757 rto*, Ägyptologische Abhandlungen 66 (Wiesbaden: Harrassowitz Verlag, 2004), 128–29.
[35] Also published alongside the Tebtunis Onomasticon, Osing, *Hieratische Papyri aus Tebtunis 1*, 219–220 and 278.
[36] Alexandra von Lieven, "Eine Punktierte Osirisliturgie (P. Carlsberg 589 + PSI INV. I 104 + P. Berline 29022)," in *Hieratic Texts from the Collection*, The Carlsberg Papyri 7 (Copenhagen: Museum Tusculanum Press, 2006), 9–38.
[37] Gerhard Fecht, "Die Form der altägyptischen Literature: Metrische und stilistische Analyse," *ZÄS* 91 (1964): 11–63, particularly 30-36.
[38] Friedhelm Hoffmann, "Zur angeblichen musikalischen Notation in einer ägyptischen Osirisliturgie," in *Mythos & Ritual. Festschrift für Jan Assmann zum 70. Geburtstag*, ed. Benedikt Rothöhler and Alexander Manisali, Religionswissenschaft: Forschung und Wissenschaft 5 (Münster: Lit, 2008), 71–76.
[39] Osing, *Hieratische Papyri aus Tebtunis 1*, 43.

x+9), *dỉt-šnᶜ* "to cause to turn back" (line x+10). Thus the notation's function in the verb section is in fact grammatically parallel to the genitival constructions marked with the cross in the substantive section, since the relationship between Egyptian infinitives and their logical object is typically genitival. But the marking does not only indicate a syntactic relationship, it also indicates a semantic relationship. Verbs sometimes have specific or idiomatic meanings when they occur in conjunction with particular objects. An excellent example of this is *wḏᶜ-mdw*, which literally means "to separate words" but its specific meaning is "to judge." Thus the cross may also be an indication that the two words must be interpreted together and that the specific semantic range of the verb-object combination, as opposed to simply the base meaning of the verb, is intended here.

Further indication that the texts were deeply concerned with specific semantic nuances comes from an evaluation of the distribution and use of *ky-ḏd*. The basic structure of an entry is clear: first *ỉr* introduces an obscure verb, then a more common synonym follows. However, most entries were more complex than this and were followed by a string of synonyms, nearly all archaic or obscure, each variously separated by a verse point, *ky-ḏd* or the ditto mark in the Tebtunis text or by either *ky-ḏd* or the ditto mark in the Schøyen tablet. The verso point and ditto mark occur between nearly every verb, but *ky-ḏd* occurs more rarely and seems to have a more specialized use. Osing tentatively suggested that *ky-ḏd* might indicate a closer relationship, but also suggested that the use occasionally seemed to be at the whim of the scribe.[40] Indeed, fragmentary nature of the Tebtunis text greatly complicates any attempt to understand the arrangement of verbs under a *ỉr* heading. And, except for the verb that follows the initial *ỉr* entry,

[40] Ibid., 36.

nearly all verbs are archaic, rarely attested in late hieratic texts, and typically unattested in demotic.

Nonetheless, by comparing the better preserved sections of the Tebtunis text with the Schøyen tablet, a pattern in the use of *ky-ḏd* does appear. Occasionally, it seems to correlate with variations in semantic range, just as in traditional commentary texts *ky-ḏd* is typically used to indicate variant readings. For example, if we look at one of the best preserved sections of the verb list, Frag. J 11 (Example 4.2) the entry begins with *ỉr* introducing *sqd* "to travel by boat," followed by the more common *ḫn* "to row," and subsequently by various verbs associated with the movement of the boat. But the end of this entry from the *ky-ḏd* in line 11 to the end contains verbs seemingly associated with action performed on a boat, as opposed to the movement of the boat itself, such as *ḫrp ḫrpt* "to control the steering line" and *ỉdḥ nwḥ* "to tie the line".

Example 4.2: Tebtunis Onomasticon, J11/5-14

CↄʞTI *ḫny* 5) […] ⸢JR⸣ ⸢sʾqd ° ḫn	JR travel by boat ° row
kꜣ ꜥt … 6) […] › kꜣt-ꜥ … ›	[…] › work of the hand (?) … ›
[…]gṯ ⸢ḏy⸣ […] 7) […]gdy ° ḏꜣy ° nmḥ ›	[tr]avel (?) ° cross ° go through (?) ›
… 8) ⸢ḫsf⸣y ° mny °	sail upstream ° moor °
ʿmnʾ(?) *wꜣty* 9) [d]⸢wn⸣ ° mny ° KY-ḎD wḏ	stretch out ° moor ° KY-ḎD depart °
tꜣ snḥ sny 10) KY-ḎD ḏꜣ snḥ › KY-ḎD snỉ	KY-ḎD cross tie › KY-ḎD go by
smn ḫl[..] ꜣtḥ 11) KY-ḎD smn ° ⸢ḫr⸣[p] ° ỉdḥ °	KY-ḎD make firm ° control ° pull °
ḫrp 12) ḫrp ḫrpt ° ỉdḥˣ°nwḥ °	control the steering line ° tie the line °
tḥ[…] ” 13) […]… ỉdḥ	[…] … pull
… 14) JR ⸢ḫsfy⸣ […]	JR sail upstream

Another peculiarity is the repetition of certain entries throughout an section. In Example 4.2, *mnỉ* "to moor" appears twice, as so does *ỉdḥ* "to tie," and also *ḫsfy* "to sail upstream." These repetitions are typical of most sections throughout the verb section of the Tebtunis Onomasticon and can be divided into several categories. First, the same word is repeated with different spellings, e.g. *mnỉ* appears with different determinatives: the striking man determinative in J11/8 and with the boat determinative in J11/9. Second, repetitions occur when the verb occurs alone and then again with an object. Here *ỉdḥ* occurs alone first in J11/11 and then with its object *nwḥ* in J11/12. The same occurs for *ḫrp*: alone in J11/11 and with an object in J11/12. And finally repetitions occur across *ỉr* sections. So *ḫsfy* occurs once within the entry beginning *ỉr sqd* (J11/8) and the very next *ỉr* section starts with *ḫsfy* (J11/14). The distribution of repetitions in the Schøyen tablet shows the same pattern. With *ḫtḫt* "to drive away," the verb appears with different determinatives—with the bent leg and walking legs in recto, line x+3 and with the backwards legs in recto, line x+7—as well as a third time in a broken context (recto, x+5). Repetition of a base verb and object can be seen in the two instances of *tnbḫ* "to turn aside." The verb first appears with no object in recto, line x+5 and then repeats in recto, line x+9 with *rdwy* "legs" as object. And finally *ptḫḫ* "to throw down" occurs in the middle of a section (recto, x+3) and then acts as the focus word in the one directly following (recto, x+3).

These repetitions form a pattern, indicating a need for orthographic clarity and semantic specificity. The rarity and obsolesce of these verbs explain the need to include variations in orthography in order to avoid confusion. In particular, determinatives are key to matching similar looking words with the intended meaning. The repetition of a

verb both with and without an object is further evidence of a close interest in semantic nuance and an acknowledgement of the effect an object has on the meaning of a verb, according nicely with the interpretation of the use and meaning of the cross symbol that often appears in such a situation. The appearance of a verb from the previous entry as the headword for the subsequent also indicates that further clarification on that verb was needed. The main purpose of the texts seems to be to create a web of associations between semantically linked words and to account for variations in meaning and spelling. The Tebtunis Onomasticon also adds in another layer of concern for the pronunciation with the inclusion of the demotic and Old Coptic glosses.

The two sign-lists also display a similar emphasis on visual form, semantic nuance, and pronunciation. The Tanis Sign Papyrus is less complex than P. Carlsberg 7. It is mostly concerned with visual identification of sign forms and to a much lesser extent, the phonetic realization of certain signs. As has already been discussed in Chapter 2, pages V, 14-VII,10 contain an alphabetically organized list of mostly uniliteral signs. Certain biliteral signs are also in the lists, however they are biliteral signs which had been used in group-writing since the New Kingdom and their acrophonic use to represent an initial consonant has been long established by the Roman Period. The fact that these signs are grouped together and organized alphabetically indicates that the scribes truly did perceive them as a distinctive subset. However, other subsets of hieroglyphs are also loosely grouped in the Tanis Sign Papyrus, but primarily by their appearance.[41]

[41] Much the way modern Egyptologists create sign lists, i.e. Gardiner's sign list, see Alan H Gardiner, *Egyptian grammar; being an introduction to the study of hieroglyphs.*, 3rd ed. (Oxford: Oxford University Press, 1957), 442–548.

Example 4.3. Tanis Sign List, 13/1-13.

	*rnp*	year[42]
	dnḥ	wing
	*mkr*	?[43]
	*sp.t ỉ^{c}ḥ*	edge of the moon
	pt	sky
	*pt ỉ(w)=s ṯs(?)*	sky that is raised
	*pt šn^{c}*	sky of clouds
	*pt sbꜣ*	sky and star
	*sbꜣ*	star
	*ỉtn hrw*	disk of the day
	*sty.(t)*	rays of light
	*ỉtn r^{c}*	disk of Re
	*ỉ^{c}ḥ*	moon
[…]	…	…

The organization of similar signs can be seen in Example 4.3. In line 4-13, all signs represent celestial images. The hieroglyphic column lies at the right separated from the preceding page and the subsequent explanation by two vertical gridlines. The second column with the hieratic equivalent and third column with the description are not separated by a dividing line, but by a spatium. The explanatory third column only describes what the sign looks like, but does not give any information about the ideographic or phonographic values. In other words, the explanation is simply a literal description of sign; it does not indicate what the sign means or how it should be read. This raises the question of the purpose of the list, particularly since the hieroglyphs in the

[42] Reading this as *rnp.t* "year" is a bit out of keeping with the rest of the descriptions, as they are literal descriptions of the sign not the most common reading of that sign. Potentially, this is mean to be read as *rnp* "to be young" in the sense of a "young plant" which the hieroglyph likely represents. In that sense, its inclusion near the list of celestial signs makes some sense since *rnp* "be young" is used in connection with the sun and moon at Edfu, see Wilson, *Ptolemaic Lexikon,* 584.
[43] Wb. 2, 163,1.

initial column are carefully and beautifully executed. Unfortunately, a title, if it existed, has not been preserved, so can give no clarification.

What the signs represent is self-evident for some of the signs, but others are less clear. Moreover, the horizontal relationship between each hieratic and hieroglyphic form, as well as the vertical relationships among hieratic forms on the one hand and hieroglyphic forms on the other may point to a possible purpose. For example, the three hieroglyphic plant signs on page 16/10-12 look quite similar if one is unfamiliar with hieroglyphs, while the hieratic signs are each quite distinct. On page 20/1-6, all six tall vertical signs look similar in both hieratic and in hieroglyphs. Thus the text could be used not just to know what a sign represented, but also to distinguish similar signs from each other.

Another possibility is that the sign list was meant to represent the totality of the hieroglyphic system, akin to the way the title of the Onomasticon of Amenemope claims that it is a teaching for "knowing all things that exist."[44] Some of the sections of Amenemope even seem to parallel certain grouping of signs. Section II of Amenemope contains words for sky, water and earth, just as the Example 4.3 contains signs for the sky, and section III of Amenemope lists people and offices, just as Pages II-IV of the Tanis Sign Papyrus contain hieroglyphs of people. I do not mean to suggest that the two are directly linked, merely that lists covering a wide range of topics were used as a representation of the totality of the world. If the signs themselves are priestly knowledge, then the Tanis Sign Papyrus is a parallel to similar lists like the nome monographs and geographic lists, where the relevant totality of the geographic world is represented.

[44] Gardiner, *AEO*, 2*.

Moreover, the act of writing a list of signs would have had value in and of itself as a testament to the scribe's knowledge and it might have even been considered a votive offering of a kind to Thoth.[45]

P. Carlsberg 7 addresses the hieroglyphic writing system in a more complex manner by listing potential readings of signs and their meanings, while also playing with the interaction between meaning and sound.

Example 4.4 P. Carlsberg 7, 1/4

ḏd-r ḥb ḏd-r ḥꜣ ỉb ḫft ḏd n rᶜ r=f [ḥꜣ=f] m ỉb ḏd-r ḥꜣ ḥꜣ ḏd-r […]
I.e. an ibis. I.e. "a heart descends" according to what was said by Re about it, "he descends as a heart." I.e. "a ba descends." I.e. […]

The chain of associations that underlie the explanation for the ibis hieroglyph in Example 4.5 is complicated. First of all, the hieroglyph shows an ibis bird with the maat feather. In the actual papyrus it is not clear if the ibis is in fact standing on a standard or its feet simply form a ground line on which the maat feather also rests. In either case, the ibis represents not just a bird, but specifically the sacred ibis associated with Thoth and can be read with the value *ḥb* "ibis" or as an ideogram for Thoth himself.[46] Here the first meaning of the hieroglyph is given as *ḥb* "ibis," which is the expected basic definition. The next explanation is a mythological pun. The combination of *ḥꜣ ỉb* would have sounded very close to *ḥb* "ibis." Thoth is associated with the heart generally and specifically is known as the heart of Re,[47] thus the attribution to the speech of Re. Moreover, this also reflects the actual contemporaneous use of the sign. The ibis

[45] Jasnow and Zauzich, *Conversations in the House of Life: a new translation of the Ancient Egyptian Book of Thoth*, 47–48.
[46] For the sacred ibis, see Gardiner, *Egyptian Grammar*, 470, G26.
[47] Martin Andreas Stadler, *Weiser und Wesir: Studien zu Vorkommen, Rolle und Wesen des Gottes Thot im ägyptischen Totenbuch* (Tübingen: Mohr Siebeck, 2009), 164–67 and 180-84.

hieroglyph represented not just the sound *hb*, the ibis bird and the god Thoth, but it was used to write the word *ỉb* "heart" and even represent *ȝb* as a phonogram too.[48] The next meaning is a further pun on the same *hb* sound, but replacing the *ỉb* with the phonetically similar *bȝ*.

Example 4.5. P. Carlsberg 7, 1/8

⊙ *ḏd-r hrw ḏd-r rᶜ m wbn.f m dwȝt rḫ […] ỉm=f ḏd-r psḏt […]*
I.e. day. I.e. Re in his rising in the morning, knowing […] in it. I.e. the Ennead […]

Not every entry in P. Carlsberg 7 gave as complex a sequence of meanings as the *hb* entry. This certainly relates to the association between Thoth and writing. If ever there was an appropriate hieroglyph to give a punning, mythologically complex definition, the ibis hieroglyph would be it. In Example 4.4 a more straightforward mythological explanation is given, as well as another indication of the contemporaneous use of the sign. Again the first reading of the sign, here the sun, is the most common meaning associated with the sign when it is used as an ideogram. The next meaning is the mythological interpretation, which equates the sun with the sun god Re, but it also reflects the very common use of the sign to write the name of Re. The third meaning may be partially derived from the contemporaneous use of the sign in the Ptolemaic temple texts where it can be used as a phonogram for *psḏ*, probably due the visual similarity between the sun sign and the *psḏt* sign.[49]

[48] Dieter Kurth, *Einführung ins Ptolemäische. Eine Grammatik mit Zeichenliste und Übungsstücken* (Hützel: Backe-Verlag, 2008), 252.
[49] Ibid., 319.

4.4 Secret Knowledge

The texts under consideration here have often been described as dictionaries,[50] a term that tends to conjure images of students and scholars busily looking up entries in reference books. This impression however must be tempered by an understanding of the role of temples, priests, and sacred knowledge in Egypt.[51] On the one hand, the onomastica and sign-lists were functional texts that could be used for the analysis of archaic material and the creation of new compositions (see Chapter 5), but on the other hand, they were prestige texts written in an archaic script with clear indications that their contents were perceived as sacred and secret. They belonged to a class of religious and ritual texts considered fundamentally inaccessible and closed to the public. As Kim Ryholt has recently argued about the texts contained in temple scriptoriums: "these libraries zealously protected their writings which were frequently described as 'secret' throughout the three millennia which our sources cover. The primary reason for restricting access to the literature may well have been to protect it from abuse and to retain its potency."[52] Both the Tebtunis Onomasticon and the P. Carlsberg 7 have preserved titles that explicitly indicate the exclusivity of their contents.

Example. 4.6. P. Carlsberg 180, Frag. A, 1/1

pꜣ ỉpd šṯꜣ n wḥꜥ ỉtn[.w]
The secret compendium of explaining obscurities

[50] Iversen, *Hieroglyphic Dictionary*, 6–13; Osing, *Hieratische Papyri aus Tebtunis 1*, 25.
[51] Osing also notes that for the Tebtunis Onomasticon "Auch wenn Papyrusrollen in Ägypten über lange Zeit gebraucht werden konnten, hätte sich eine so lange Rolle wie diese doch kaum als Nachschlagewerk für den täglichen Gebrauch geeignet." Osing, *Hieratische Papyri aus Tebtunis 1*, 33.
[52] Kim Ryholt, "Libraries in ancient Egypt," in *Ancient Libraries*, ed. Jason König, Katerina Oikonomopoulou, and Greg Woolf (Cambridge: Cambridge University Press, 2013), 37.

The title of P. Carlsberg 180 comes at the beginning of the verb list. The text is so fragmentary that it is impossible to be certain whether or not the title applied to the entire composition or if the other sections had their own titles. The word *ỉpd* "compendium" in the title presents some problems. The translation "compendium" is the suggestion of Osing who assumes that the word must be a specialized term for the onomasticon itself.[53] But *ỉpd* is not otherwise attested in either Middle Egyptian or demotic with the papyrus determinative. The designation *štȝ* "secret" is far more instructive. The idea of secrecy is closely tied to religious restricted knowledge.[54] As Assmann has discussed for the solar cult, "[the hiddenness peculiar to holiness] is expressed through the secrecy surrounding the ritual, through the regulations for the initiation and purification of priests and in temple architecture, the development of which down to the Late Period makes it clear how much importance was attributed to this aspect of the holy throughout Egyptian religious history."[55] There is no doubt that knowledge of Egyptian was largely restricted to the priests, and specifically hieroglyphic and hieratic knowledge would have been much further restricted.

Hand in hand with the Tebtunis Onomasticon's *pȝ ỉpd štȝ* "the secret compendium," P. Carlsberg 7's title also references the hidden:

[53] Osing, *Hieratische Papyri aus Tebtunis 1*, 68–69.
[54] "Restriction of religious knowledge in Egypt should be expected, at least as regards cult, entry into the temples, and related approaches to the gods: limited physical or organizational access is a first basis for restriction. It would be surprising if there were not some homology between access to religious centers and to religious knowledge." John Baines, "Restricted Knowledge, Hierarchy, and Decorum: Modern Perceptions and Ancient Institutions," *JARCE* 27 (1990): 6.
[55] Jan Assmann, *Egyptian Solar Religion in the New Kingdom. Re, Amun and the Crisis of Polytheism*, trans. Anthony Alcock (London: Kegan Paul International, 1995), 137.

Example 4.7. P. Carlsberg 7, 1/1-3

> *ḥꜣt-ꜥ m bꜣk tj(.t) wḥꜥ qsnw whꜣ ỉmn wḥꜥ ỉ[tnw …]*
> *m ỉrw.snky-ḏd iy šps wḥꜥ gš m nṯrw tp-ꜥ špsw bs dšr m spꜣwt nỉw.wt nṯrw […]*
> *ꜥrỉt nty msq m ḥwt-nṯr nty wsỉr ḫnty ỉmntyw nṯr ꜥꜣ nb ꜣbdy m […]*
>
> The beginning[56] of the work of signs, the explanation of difficulties, the opening of hidden things, the explanations of difficult [passages …] through their noble associates.[57] The explanation of what pours[58] from the gods, the noble ancestors, the sacred images from the nomes and cities of the god […] roll of leather from the temple of Osiris, foremost of the Westerners, the great god, lord of Abydos in […]

While the Carlsberg papyrus does not explicitly call itself secret (*štꜣ*), it does refer to what is hidden (*ỉmn*). Moreover, the attribution of the content to the sacred images (*bs dšr*) implies secrecy because the images (*bsw*) are the cult images, which are always considered secret and hidden due to their restricted access.[59] The hieroglyphs themselves are of course *mdw-nṯr*, the divine words, and here they pour forth (*gš*) from the gods. In all likelihood, the final phrase of the title attributes the content to an ancient text and claims that this text "was found" or a similar phrase in the leather roll.[60] Thus the contents were both mysterious and divinely given.

The use of terms such as *ỉtnw* or *qsnw* are not just references to written difficulties, but also references to mysterious, secret knowledge. In P. Harkness II, 24-25, the deceased is glorified with the phrase "Your eyes will not suffer lack of mysteries

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[56] Iversen originally read wḥꜥ "Explanation" here, but the sign is slightly different from the other clear instances of wḥꜥ. Both Müller in a review of the work and later Quack have suggested reading ḥꜣty-ꜥ, which fits the traces and makes sense. Dieter Müller, "Review of Papyrus Carlsberg Nr. VII: Fragments of a Hieroglyphic Dictionary, by Erik Iversen," *Bibliotheca Orientalis* 19 (1962): 145; Quack, "Alphabetreihenfolge," 164, n. 7.
[57] Quack suggests this is *ỉrw* vs. Iverson's reading of *sꜣw* "protection."
[58] Wilson, *Ptolemaic Lexikon*, 1115; Wb. V, 156.
[59] "From the MK *bsw* can be qualified as sštꜣ, but *bsw* alone seems to imply something secret or mysterious." Wilson, *Ptolemaic Lexikon*, 331.
[60] For similar such phrases see, Christopher Eyre, *Use of documents in pharaonic egypt* (Oxford: Oxford University Press, 2013), 277–79.

(*ỉtn.w*)," [61] which implies that for the journey to the afterlife, the deceased would have access to the sacred mysteries necessary for success, just as she would also have frankincense for her lips and a son to recite the blessings. In the Book of Thoth, the disciple says, "May I see the darkness as a servant of Isten, that I may make a glorification of the secrets (*ỉtn.w*) of Thoth." [62] In both cases, it is clear that the *ỉtn.w* are not just difficult passages that need to be explained, but can also refer to secret divine knowledge.

The secrecy and restriction of the contents of the onomastica and sign-lists are ensured through their choice of language and script. Demotic, while still the under the purview of the temple, would have granted the texts a significantly larger potential audience and demotic was far from incompatible with religious texts. Ritual texts that contained religious knowledge such as the Book of Nut, the Book of the Fayum, and the Book of the Temple were translated into demotic and/or supplied with demotic commentary. [63] Yet the explanations in the onomastica and sign lists remained in the classical register. Even the Tebtunis Onomasticon, with its demotic and Old Coptic glosses, was originally a purely hieratic composition and presumably the text was seen as complete without the glosses. Moreover, while sometimes the demotic glosses give the contemporary equivalent of an entry if the word exists both in earlier Egyptian and in demotic, the glosses are first and foremost a pronunciation guide. Thus the hieratic

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[61] Mark Smith, *Papyrus Harkness (MMA 31.9.7)* (Oxford: Griffith Institute, 2005), 60 and 150; Mark Smith, *The mortuary texts of papyrus BM 10507*, Catalogue of demotic papyri in the British museum 3 (London: British Museum, 1987), 98, n. b on 6, 21.

[62] B02, 9/1; Jasnow and Zauzich, *Book of Thoth*, 250. In a more recent translation: "May I proceed from the eclipse as a servant of Isten. I will make a glorification of the secrets of Thoth." Jasnow and Zauzich, *Conversations in the House of Life: a new translation of the Ancient Egyptian Book of Thoth*, 125.

[63] For the Book of the Fayum and the Book of Nut, hieratic and hieroglyphic copies without translation or commentary likely also existed at the same.

explanations in these texts would have been useful and had meaning on for a tiny fraction of priests. Not even the Tebtunis Onomasticon with its glosses could have been understood by someone literate in only demotic, much less the Tanis Sign Papyrus or P. Carlsberg 7.

4.5 Commentary and Exegesis

The concept of *wḥˁ* is key to the purpose of these texts. As a verb, its basic meaning is to loosen or untie.[64] It can be used in a literal manner to refer to untying knots in string or similar activities, e.g. PT 536 *wḥˁ n=k qꜣs=k* "loosen your fetters for yourself." But from early on it had an extended, metaphorical meaning, particularly with respect to mental and linguistic abilities.[65] With *ỉb* "heart," it has the sense of "clever, understanding." An inscription from the Middle Kingdom tomb of Sarenput I at Qubbet el-Hawa refers to the tomb owner as *wḥˁ ỉb* "understanding of heart."[66] The act of loosening or untying could be applied to difficult situations, particularly in the administrative sense as can be seen in the phrase *sr wḥˁ ṯzz.t* "an official who solves difficulties."[67] An instance where *wḥˁ* is applied to foreign languages occurs in a biographical stela *wḥˁ mdw ḫꜣs.wt nb.t* "the one who explains the words of all foreign lands."[68] Thoth himself is said to engage in *wḥˁ* in a hymn from a statue of Horemheb: *wḥˁ mdw.t=sn* "who explains their words."[69]

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[64] Wb. I 348-49.
[65] Emily Cole, "Interpretation and Authority: The Social Function of Translation in Ancient Egypt" (Dissertation, UCLA, 2015), 71–82; Antonio Loprieno, "Linguistic Variety and Egyptian Literature," in *Ancient Egyptian Literature: History and Forms*, ed. Antonio Loprieno, Probleme der Ägyptologie 10 (Leiden: Brill, 1996), 524–25; Siegfried Schott, *Bücher und Bibliotheken im Alten Ägypten: Verzeichnis der Buch- und Spruchtitel und der Termini technici* (Wiesbaden: Harrassowitz, 1990), 53–54.
[66] D. Franke, *Das Heiligtum des Heqaib auf Elephantine. Geschichte eines Provinzialheiligtums im Mittlerem Reich*, SAGA 9 (Heidelberg, 1994), 205, n. 6.3.
[67] Sehetepibre 7, Leiden V 4, Montuhotep Stela (CG 20539, I.b.8-9 and II.b.5-6)
[68] CG 20765, 2-4
[69] Urk. IV 2093, 6.

However *wḥꜥ* specifically can be used for the act of commentary. It occurs as a title in the translated copy of the *Ritual for Repelling the Evil One* and in a commented chapter of P. Jumilhac. A chapter in P. Jumilhac gives a commentary on the names listed in the previous one: *wḥꜥ ỉtnw n rn.w n spꜣt tn* "the explanation of the difficulties in the names of this nome." The version of the *Ritual for Repelling the Evil One* on P. BM 10252 begins with the title: *nꜣ wḥꜥ sšꜣ n pꜣ ntꜥ n ḫsfꜣt* "the explanations of the mysteries of the Ritual for Repelling the Evil One." It is perhaps significant that BM 10252, which is a Ptolemaic version of the ritual and the only version with a translation,[70] is written completely in hieratic just like the onomastica and sign lists. The translation proceeds from the source text of the ritual in hieratic Middle Egyptian to a proto-demotic version also written in hieratic. Like the hieratic commentaries of the Tebtunis Onomasticon and P. Carlsberg 7, it too refers to its contents as *sšꜣ* "secret."

Both the use of *wḥꜥ* in the title for the Tebtunis Onomasticon and P. Carlsberg 7 on the one hand and the use of traditional commentary marks on the other, therefore, suggest that they belong to the realm of commentaries. But there are fundamental differences between "commentary" as we see it in the onomastica and sign lists, and commentary in the more traditional sense. First of all, commentary traditionally implies that there is an established mode of textual transmission. Assmann defines a commentary as a text meeting three criteria: Nachträglichkeit (added afterwards), Deutungsfunktion (interpretive function), and Textbezug (text dependent).[71] In other words, commentaries are interpretive elements which are added to an already existing text and which cannot

[70] The text is also known from p. Louvre N. 3129 and the unpublished p. HieraTeb SCA 3460.
[71] Jan Assmann, "Altägyptische Kultkommentare," in *Text und Kommentar*, ed. Burkhard Gladigow and Jan Assmann, Archäologie der literarischen Kommunikation 4 (München: W. Fink, 1995), 93–109.

stand alone. By this definition Ursula Rößler-Köhler argues that the annotations to CT 335 and BD 17[72] are in fact commentaries and Emily Cole[73] contends that translations from Earlier Egyptian to later Egyptian, as in e.g. the *Book of Nut,* are often commentaries as well. Two examples from CT 335 illustrate how these annotations function as commentary:

Example 4.8. CT 335: Coffin M54C 193a-b

> *nnk sf ỉw=y rḫ=kw dwꜣ.t*
> *ỉr sf wsỉr pw*
> *ỉr dwꜣ.(t) rᶜ [p]w*
> Yesterday is mine. I know tomorrow.
> As for yesterday, it is Osiris.
> As for tomorrow, it is Re.

Example 4.9. CT 335: Coffin M4C 298a-302c

> *nḥm=kwy m nṯr pw sšṯꜣ ỉrw ntt ỉnḥw=f m ᶜ.wy mḫꜣt*
> *- - -*
> *zy pw nṯr pn nty ỉnḥ=f m ᶜ.wy mḫꜣt*
> *Ḥr ḫnty ḫm*
> *ky sp n ḏd Ḏḥwty pw*
> Let me be saved by that god, secret of forms, whose eyebrows are the arms of the balance….Who is this god whose eyebrows are the arms of the balance? It is Horus, foremost of Khem. Another reading: it is Thoth.

In both examples, the commentary is marked: in the former with the topicalizer *ỉr* "as for, concerning"; in the latter with the interrogative *zy* "who, what." The second example also illustrates how conflicting manuscripts might be reconciled: by noting "another reading." By the New Kingdom, the normal phrasing for *ky sp n ḏd* "another reading" is *ky-ḏd*, which is the term used in the Tebtunis Onomasticon. The basic structure of commentary

[72] Ursula Rößler-Köhler, "Text oder Kommentar. Zur Frage von Textkommentaren im vorgriechischen Ägypten," in *Text und Kommentar*, ed. Burkhard Gladigow and Jan Assmann, Archäologie der literarischen Kommunikation 4 (München: W. Fink, 1995), 111–39.
[73] Cole, "Interpretation and Authority." However Cole demonstrates that the translations in P. Rhind I and II are not in fact commentaries, according to Assmann definition. Ibid., 190–224.

in the Coffin Texts and in texts of the New Kingdom and later[74] has the commentary directly following the base text, glosses are marked with *ỉr* or a question, and variant readings are also marked. The basic form of commentary is drawing an equivalency between two elements, one unknown and one known (i.e. A is B), usually by means of a nominal sentence.

The onomastica and sign-lists clearly show the same basic form as commentaries in that they draw a link between two elements. The basic format for an entry in the Tebtunis Onomasticon or Schøyen Tablet is *ỉr* A, B "as for A, B." The Tanis Sign Papyrus simply juxtaposes a hieroglyphic sign, its hieratic equivalent, and a literal explanation of the sign in the appropriate column. P. Carlsberg 7 has a hybrid strategy and lists the hieroglyphic sign in a column with the explanations introduced in the adjacent column with *ḏd-r* "that is." Yet there is no base text. The entries in the Tebtunis onomasticon and the Schøyen tablet simply begin with *ỉr* "as for, concerning," and contain no indication where the focus word might have originated. The sign lists too simply have columns of signs juxtaposed with their explanations. The use of the commentary marks certainly implies that the entries might have been compiled from glosses and annotations appended to other texts or additions to an existing lists, but there are no identifiable Vorlage or source texts. A potential model for the textual transmission of the entries in the Tebtunis onomasticon in particular is vexing. It is tempting to see

[74] Other texts with commentary include the medical texts P. Ebers and P. Edwin Smith, a cult commentary to the Opening of the Mouth Ritual, commentary fragments on the creation of a statue in Dendera, translation of the Ritual for Repelling the Evil One, the Myth of the Sun's Eye, the Demotic Chronicle, the Book of Nut, and the Book of the Fayum. For updated references to these commentaries, see von Lieven, *Grundriss des Laufes der Sterne*, 265. For translated texts as commentary, see Cole, "Interpretation and Authority." For the forthcoming work on the commentary in the Book of the Fayum, see Horst Beinlich and Richard Jasnow, *Der Mythos in seiner Landschaft: das ägyptische "Buch vom Fayum". 3, Die hieratisch-demotischen Texte. Unter Mitarbeit von Richard Jasnow*, Studien zu den Ritualszenen altägyptischer Tempel, 11,3 (Dettelbach: Röll, forthcoming).

each focus word (marked with *ỉr*) as the core of the text, but there is no discernable pattern. The focus word is typically obscure and archaic, but the words that are linked to it may also include equally obscure words. Christian Leitz in a review of Osing's original publication made a key observation about a small group of verbs in the onomasticon.[75] Their source appears to be the Ramesses III inscriptions at Medinet Habu. Given that the Medinet Habu inscriptions predate the Tebtunis Onomasticon by a millennium, one might expect to find these verbs either clustered together or each as a focus word. But that is not the case. Only one verb *swḥ*[76] is a focus word, the rest are scattered across various columns. So while this link between the Tebtunis Onomasticon and the Medinet Habu inscriptions suggests that one purpose was scholarly exegesis on vocabulary from historical inscriptions,[77] how such vocabulary was collected, codified, and written down is still unknown. Similarly, the sign lists appear to have no parallel and it is difficult to extrapolate a potential path of transmission on the basis of two exemplars, if such a path even existed.[78]

4.6 Conclusion

These texts reveal the different ways in which scribes were aware of and deliberately engaged in the myriad of relationships between a lexical unit and its written form, a word and its semantic field, and the ideographic and phonetic value of a sign. The different approaches and emphases towards disambiguating orthographies, creating semantic links, specifying lexical nuances, and realizing a phonetic pronunciation provide

[75] Christian Leitz, "Review of The Carlsberg Papyri, 2. Hieratische Papyri aus Tebtunis, 1. by Jürgen Osing," *Bibliotheca Orientalis* 57, no. 3/4 (2000): 270–78.
[76] J 2,19 and KRI V, 61, 4 and 62, 6.
[77] This accords nicely with other evidence for a scholarly engagement with the past, such as the copies of Middle Kingdom tomb inscriptions from Siut, which were also found at Tebtunis.
[78] It is not beyond the realm of possibility that the first sign-lists were created more or less in the form preserved in the Tanis Sign Papyrus and P. Carlsberg 7, perhaps simply on analogy with word lists.

a foundation for exploiting the plethora of possibilities inherent in written Egyptian of all language stages and scripts. In the following chapter, I link the strategies of organization in the onomastica and sign lists to the contemporaneous processes of text production in the temple environment.

However, while I will argue that the texts are functional, they also had value and significance independent of their function. The content of the onomastica and sign-lists was a form of sacred priestly knowledge. The mere act of writing down the information would have been valued, as a demonstration of scribe's skill and perhaps even as an offering to Thoth himself. For the Tebtunis Onomasticon and P. Carlsberg 7, the texts were also explicitly titled as "secret" and "hidden." Even though they were functional texts, the hieratic and hieroglyphic script of the texts themselves indicate their exclusivity and restriction.

CHAPTER 5. THE HOUSE OF LIFE AND SCRIBAL ACTIVITY

The contents of onomastica and sign-lists from the Roman Period constituted a form of priestly knowledge in their own right, but they were also integral to the contemporaneous production of texts. The Roman Period specifically, and the Greco-Roman Period more generally, has often been seen as the point of decline in Egyptian culture. The traditional narrative speaks of the grand traditions of the past millennia falling into dust, the Egyptian scripts becoming obsolete and inscrutable, and the Hellenization of Egypt reaching completion. Yet this is belied by the rich corpus of Roman Period material, the development of new texts, and the vibrant temple inscription programs.

Despite the ever smaller numbers of scribes who were literate in all forms of the Egyptian language and all scripts, the religious and mortuary texts in particular displayed great ingenuity and creativity. I contend that by breaking the language and writing system down in to the basic units of words and signs, organizing those units into structured lists, and providing explanations for entries, elite scribes had the resources to interact effectively with the long tradition of religious and mortuary texts at a time when Middle Egyptian and the classical hieroglyphic and hieratic scripts were already ancient and beyond the ability of most scribes.

In this chapter, I discuss the institution of the House of Life and the scribal activity associated with it. The range of Greco-Roman textual productivity was extensive, but the prestige and authority of old texts affected language and script choices. At the same time, new compositions and innovative written forms flourished during this period. By linking specific features of various genres of texts to the organization and content of

the onomastica and sign-lists, I show that the onomastica and sign-lists were functional texts that acted as source books for religious texts. I also show that the principles related to sign forms and sound values in the sign-lists underpin the visual word play of the temple inscriptions and unetymological writing in demotic.

5.1 Textual Productivity in the House of Life

In the second century CE, Clement of Alexandria wrote that "the Egyptians follow a philosophy of their own, as is indeed apparent from their sacred religion."[1] He went on to specify the domains of knowledge that the Egyptian priests had mastered, giving a hierarchy of priests and subjects. According to him, forty-two books represented the essential priestly knowledge of Egypt and included astrological books, medical books, and hymns. He further specified that the hierogrammateus (sacred scribe) was versed in hieroglyphic books on cosmography and geography and that the prophet was an expert in hieratic books on laws, the gods, and the whole of priestly training. Both Osing and Ryholt have demonstrated the remarkable similarity between the contents of the Tebtunis temple library and Clement of Alexandria's description.[2] Not only do the scientific and cultic materials from the library cover the same topics, but the scripts themselves also correlate closely. The only major category of texts present among the Tebtunis manuscripts but not covered by Clement of Alexandria is narrative texts.

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[1] Translation following Garth Fowden, *The Egyptian Hermes: a historical approach to the late pagan mind* (Cambridge: Cambridge University Press, 1986), 58.

[2] Jürgen Osing, "La science sacerdotale," in *Le décret de Memphis : colloque de la Fondation Singer-Polignac à l'occasion de la célébration du bicentenaire de la découverte de la Pierre de Rosette*, ed. Dominique Valbelle and Jean Leclant (Paris: Fondation Singer-Polignac, 2000), 127–40; Kim Ryholt, "On the Contents and Nature of the Tebtunis Temple Library: A Status Report," in *Tebtynis und Soknopaiu Nesos: Leben im römerzeitlichen Fajum. Akten des Internationalen Symposions vom 11. bis 13. Dezember 2003 in Sommerhausen bei Würzburg*, ed. Sandra Lippert and Maren Schentuleit (Wiesbaden: Harrassowitz, 2005), 159–63.

But who were these priests, where were these books kept, what administrative structures underpinned this system? The institution that governed these actions is likely the *pr-ꜥnḫ,* the House of Life. Despite the importance of the House of Life, many questions still surround its precise role and function.[3] It is attested in a broad range of titles, inscriptions, and religious texts from as early as the Old Kingdom.[4] The distribution and use of the term from the New Kingdom onward suggest that it was a widespread institution throughout Egypt.[5] In all likelihood, Houses of Life were an integral part of all temples throughout Egypt in the Greco-Roman Period. Scribal education; the copying, composition, and storage of texts; and certain rituals likely took place in the House of Life. The ritual importance of the House of Life is clearly described in P. Salt 825, which specifies the process for Osirian rituals at Abydos,[6] as well as inscriptions at Edfu that speak of "performing all rites of the House of Life."[7] This indicates that not only was the House of Life and the temple linked in terms of activity, but that the House of Life was likely located within the temple complex. Yet despite the fact that P. Salt 825 even includes a description of the layout of the House of Life and an image as well, it cannot be tied archaeologically to any structure within a temple.

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[3] Alan Gardiner, "The House of Life," *JEA* 24 (1938): 157–79; Manfred Weber, "Lebenhaus," in *LÄ 3*, 954–57; Katarina Nordh, *Aspects of ancient Egyptian curses and blessings: conceptual background and transmission*, Uppsala Studies in Ancient Mediterranean and Near Eastern Civilization 26 (Uppsala; Stockholm: Acta Universitatis Upsaliensis, 1996), 106–86.

[4] The House of Life occurs in the 6th dynasty exemption decrees of Pepi II, see Nigel Strudwick, *Texts from the Pyramid Age*, Writings from the ancient world 16 (Atlanta: Society of Biblical Literature, 2005), 109–13, Coptos C and D.

[5] For a list of locations associated with the House of Life, see Nordh, *Aspects of ancient Egyptian curses and blessings*, 193–207.

[6] Philippe Derchain, *Le papyrus Salt 825, B.M. 10051, rituel pour la conservation de la vie en Egypte.* (Bruxelles: Palais des académies, 1965).

[7] Dieter Kurth, *Treffpunkt der Götter: Inschriften aus dem Tempel des Horus von Edfu* (Zürich and Munich: Artemis and Winkler, 1994), 172.

Regardless of whether the House of Life was ever tied to a physical structure in the temple or if it simply represented a part of the temple personnel, the most significant function of the House of Life was the production and transmission of texts. The *Book of Thoth* alludes to this relationship between the House of Life as a ritual place[8] and the House of Life as the site of scribal activity.[9] And by composing and copying texts, scribes were not just engaged in the perpetuation of Egyptian tradition, but also ensured the cultic perpetuation of the world. Thus the best source for understanding the activities in the House of Life is through the manuscript tradition. Here the Tebtunis Temple Library is of the greatest importance, but it must also be compared with the texts associated with Soknopaiou Nesos. The Tebtunis material demonstrates that certain texts were considered essential to the priests and were copied over and over again. These include the Book of the Temple, the Book of Thoth, the Book of Fayum, the Book of Nut, the Mythological Manual, and the Priestly Manual. The Book of the Temple alone has over twenty attestations from Tebtuntis.[10] These texts are attested in both hieratic and demotic manuscripts, and some with demotic commentary and translations. The material from Soknopaiou Nesos[11] also contains copies of the Book of the Temple, the Book of

[8] The term *pr-ꜥnḫ* occurs in the Book of Thoth, but the term *ꜥ.t-kky* "Chamber of Darkness" may also be a reference as well. See Richard Jasnow and Karl-Theodor Zauzich, *The Ancient Egyptian Book of Thoth: a demotic discourse on knowledge and pendant to the classical hermetica* (Wiesbaden: Harrassowitz, 2005), 33–38.

[9] "Quite possibly the author conceives of the House of Life as figuratively representing the underworld. In this way, the spiritual journey of the aspiring scribe may be described by images and terms drawn from the journey of the deceased in the underworld." Ibid., 35.

[10] Kim Ryholt, "Libraries in ancient Egypt," in *Ancient Libraries*, ed. Jason König, Katerina Oikonomopoulou, and Greg Woolf (Cambridge: Cambridge University Press, 2013), 30.

[11] The identification of Soknopaiou Nesos/Dime as a provenance for a text is fraught. Stadler has laid out how many attributions to Dime are based on faulty assumptions. Martin Andreas Stadler, "Archaeology of Discourse: the Scribal Tradition in the Roman Fayyum and the House of Life at Dime," in *Soknopaios: the Temple and Worship; Proceedings of the First Round Table of the Centro di Studi Papirologici of Università del Salento, Lecce - October 9th 2013*, ed. Mario Capasso and Paola Davoli (Lecce: Pensa MultiMedia, 2015), 187–232.

Thoth, and the Book of the Fayum, but mostly in demotic copies.[12] In addition to having much less hieratic and hieroglyphic material, the Soknopaiou Nesos material also has many texts not attested elsewhere and a number of texts written in an unetymological fashion.[13] This shows that the textual landscape of the Greco-Roman period was not monolithic. Scribes could choose, for various reasons, to write a text in hieroglyphs, hieratic, or demotic; to copy a base text or create a translation and commentary; or to use a particular script in an unusual manner.

This complex use of script and language stage is noteworthy because as Jacco Dieleman has put it, "Egyptian texts are usually characterized by a concern for clear generic divisions as regards content, script and language variant, the specific combination of which is mainly determined by a text's function."[14] But in the Greco-Roman Period there was not always a simple equation between religious texts and the classical forms of the language. Departures from the conventions are far from uncommon and a subset of texts deliberately use non-complementary scripts and language stages. Such texts include the Esna Hymn to Khnum, a hieroglyphic temple text that has been identified as having largely demotic grammar, a phenomenon that Joachim Quack termed "monumental demotic."[15] Other manuscripts adapt the demotic script to write a grammatically Middle

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[12] Alexandra von Lieven, "Religiöse Texte aus der Tempelbibliothek von Tebtynis – Gattungen und Funktionen," in *Tebtynis und Soknopaiu Nesos: Leben im römerzeitlichen Fajum. Akten des Internationalen Symposions vom 11. bis 13. Dezember 2003 in Sommerhausen bei Würzburg*, ed. Sandra Lippert and Maren Schentuleit (Wiesbaden: Harrassowitz, 2005), 68–69; Stadler, "Archaeology of Discourse: the Scribal Tradition in the Roman Fayyum and the House of Life at Dime," 214–18.
[13] Stadler, "Archaeology of Discourse: the Scribal Tradition in the Roman Fayyum and the House of Life at Dime," 216.
[14] Jacco Dieleman, *Priests, Tongues, and Rites: the London-Leiden magical manuscripts and translation in Egyptian ritual (100-300 CE), Religions in the Graeco-Roman world* (Leiden: Brill, 2005), 48.
[15] Joachim Quack, "Monumental-Demotisch," in *Per aspera ad astra: Wolfgang Schenkel zum neunundfünfzigsten Geburtstag*, ed. Louise Gestermann and Heike Sternberg-el Hotabi (Bonn: Kassel, 1995), 107–21; Joachim Friedrich Quack, "Von der Vielfalt der ägyptischen Sprache in der griechisch-römischen Zeit," *ZÄS* 140 (2013): 36–53.

Egyptian text. These texts are essentially ancient transcriptions and include a tablet Louvre E 10382,[16] a stela BM 711,[17] a set of joined ostraca Strasbourg D. 132+133+134,[18] two papyri with funerary spells (Book of the Dead and Pyramid Texts) P. Bodl. MS. Egy. a. 3 (P) and P. Strasbourg dem. 3,[19] and a papyrus with the text of the *Book of Transformations.*[20]

5.1.1 Authority and Prestige

Temple libraries acted as repositories for both ancient manuscripts and new compositions. Among the numerous manuscripts associated with the Tebtunis Temple Library are a remarkable set of copies of tomb inscriptions from Assiut. These hieroglyphic copies lay out the inscriptions as if they were on a tomb wall. The original tomb texts date from the First Intermediate Period to the beginning of the 12th dynasty, nearly two thousand years earlier than the Tebtunis copies.[21] The Assiut tombs must have been seen by the Roman scribes as a source of ideal inscriptions, so they carefully copied out not just the text itself, but the layout. The maintenance of old texts was tied to the authority and prestige of age. Claiming an ancient manuscript tradition granted prestige

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[16] Ghislaine Widmer, "Une invocation à la déesse (tablette démotique Louvre E 10382)," in *Res severa verum gaudium: Festschrift für Karl-Theodor Zauzich zum 65. Geburtstag am 8. Juni 2004*, ed. Friedhelm Hoffmann and Heinz Josef Thissen (Leuven: Peeters, 2004), 651–86.
[17] Sven Vleeming, "Transliterating Old Egyptian in Demotic," *Göttinger Miszellen* 117/118 (1990): 219–23; Mark Smith, *Traversing Eternity: Texts for the Afterlife from Ptolemaic and Roman Egypt* (Oxford: Oxford University Press, 2009), 665–68.
[18] Smith, *Traversing Eternity*, 607–9.
[19] Mark Smith, "Bodl. MS. Egypt. a. 3(P) and the Interface Between Temple Cult and Cult of the Dead," in *Ägyptische Rituale der griechisch-römischen Zeit*, ed. Joachim Friedrich Quack, Orientalische Religionen in der Antike 6 (Tübingen: Mohr Siebeck, 2014), 145–55; Mark Smith, "New Middle Egyptian Texts in the Demotic Script," in *Sesto Congresso internazionale di egittologia : atti,* ed. G. Zaccone and T. di Netro (Turin: Societa Italiana per il Gas, 1993), 491–95; Mark Smith, "New Extracts from the Book of the Dead in Demotic," in *Actes du IXe Congrès International des Études Démotiques, Paris, 31 août - 3 Septembre 2005*, ed. Ghislaine Widmer and Didier Devauchelle (Cairo: IFAO, 2009), 347–59.
[20] Mark Smith, "The Demotic Mortuary Papyrus Louvre E 3452" (PhD, University of Chicago, 1979).
[21] Jürgen Osing and Gloria Rosati, *Papiri geroglifici e ieratici da Tebtynis* (Firenze: Istituto papirologico "G. Vitelli," 1998), 55–100. The inscriptions are recorded on two papyri: PSI inv. I 3 + pCarlsberg 305 + pTebt. Tait Add 2 e (TM 101325) and PSI inv. I 4 + pCarlsberg 306 + pTebt. Tait Add. 3 (TM 101326). The original inscriptions are from Assiut Tomb I (*ḥ ʿpỉ-ḏfȝỉ*) and Tombs III-V (*ỉt-ỉb, ḫty* II, *ḫty* I).

and authority to a text.[22] Even texts from the New Kingdom exploited the authority of a real or manufactured history. The *Book of the Dead,* spell 30 includes a gloss that asserts:

> This spell was found in Hermopolis, under the feet of this god. It was written on a block of mineral of Upper Egypt in the writing of the god himself, and was discovered in the time of the Majesty of the vindicated King of Upper and Lower Egypt Menkaure. It was the king's son Hordjedef who found it while he was going round making an inspection of the temples.[23]

The spell ensures its power and authority both through an assertion of its divine origin ("in the writing of the god himself") and through its antiquity, as it dates the discovery of the text in the Old Kingdom. In a Greco-Roman context, this occurs as well. The *Book of the Temple* begins with:

> "[Copy of a text of] the King of Upper and Lower Egypt Neferkasokar, which was found in an ancient decree in the House of the Book of the King of Upper and Lower Egypt Cheops."[24]

Thus despite the fact that text is not attested prior to the Roman Period, it claims to date back to the Old Kingdom, some two and a half millennia prior.

But as Christopher Eyre has noted, "A high proportion of claims to the use of old texts are obviously fictional, and reference to the authority of old texts is pragmatic and contextual, never dogmatic."[25] In other words claiming an ancient pedigree suffices to legitimize a text, but there was no need for true or even claimed absolute fidelity to an original text. Thus claims such as in the Shabaka stone about the state of an ancient manuscript or the lacuna in the Book of Nut Osieron texts occur concurrently with the

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[22] For a useful summary of such claims, see Christopher Eyre, *Use of documents in pharaonic egypt* (Oxford: Oxford University Press, 2013), 277–80.
[23] Quoted in Ibid., 278.
[24] Joachim Friedrich Quack, "Organiser le culte idéal: le Manuel du temple," *Bulletin de la Société Française d'Égyptologie* 160 (2004): 12–13.
[25] Eyre, *Use of documents in pharaonic egypt*, 278.

careful scribal notes about variant readings in the Book of the Dead. Referring to the late development of demotic funerary texts, Foy Scalf notes that "Egyptian religious literature never developed a closed canon; while certain texts such as various Book of the Dead spells were copied faithfully and accurately over the course of centuries, scribes could take creative license at any time."[26]

Instead, scribes could follow multiple paths to create an effective, powerful and authoritative text. The use or partial use of the hieroglyphic or hieratic script could render a text appropriate for a religious context, such as a temple wall, even if the grammar of the text itself was modern. The inverse was also true. A text could be written in the demotic script, but the content itself was ancient. In other words, the House of Life was a productive place, in which scribes not only faithfully copied the ancient texts, but modified, adapted and composed new texts.

5.1.2 Book Culture

Hints of a far richer and broader culture of books than can be attested in actual manuscripts come from lists of book titles at Edfu and Tod, citations in commentary, and even documentary texts. An extensive list of books is inscribed on the walls of a small room on the south-eastern wall of the outer court at Edfu temple. The inscriptions identify both the room and give a title for the book list: *pr-mḏꜣt n rꜥ ꜥpr m bꜣw rꜥ* "house of books of Re, equipped with the souls of Re."[27] The term *bꜣw rꜥ* "souls of Re" refers to sacred books.[28] The books named in the inscriptions are ritual books and the total number

[26] Foy Scalf, "Passports to Eternity: Formulaic Demotic Funerary Texts and the Final Phase of Egyptian Funerary Literature in Roman Egypt" (Dissertation, University of Chicago, 2014), 227.
[27] Edfou III, 339
[28] Wilson, *Ptolemaic Lexikon*, 299-300.

of books is 41, tantalizingly close to the 42 books named by Clement of Alexandria.[29] The *pr-mḏ͗t*, despite the implication of the name, is likely not the primary location of the temple library or the main place of work for temple scribes. The Edfu room is far too small to have accommodated such activity or even more than a few manuscripts.[30] Rather, the *pr-mḏ͗t* seems to have been a specialized storage area for ritual texts in use at the temple. The placement of the names of ritual books on the walls of the temple further indicates the sacralized nature of the written documents. In this light, that the elements of the written system, not just the hieroglyphs themselves, but also issues of orthography and shades of meaning, would also be seen as sacred knowledge is not surprising. The Edfu book list is paralleled by another book list at Tod. The works mentioned at Tod are linked to the liturgical calendar and certain titles mention specific festivals (e.g. *mḏ͗t n ḥb ḏḥwty n pr ḫnsw* "the Book of the Festival of the Thoth in the Temple of Khonsu").[31] However there are no overlaps between the titles at Edfu and the ones at Tod.

A first-second century CE papyrus from Tebtunis preserves a list of four book titles: one broken and unreadable, one unattested, one paralleled in the list at Tod, and one for which an actual manuscript of the book (or a section of it) is preserved from Tebtunis.[32] Few of the known book titles can actually be matched with a manuscript, illustrating just how poorly preserved the papyrological wealth of temples may be.

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[29] Alfred Grimm, "Altägyptische Tempelliteratur," in *Akten des vierten Internationalen Ägyptologen Kongresses : München 1985*, vol. 3, Studien zur altägyptischen Kultur, Beihefte 1 (Hamburg: Helmut Buske, 1989), 161–62.

[30] Eyre states: "At Edfu the book-house is a very small structure, rather like a stone lean-to" and similarly "At Philae the book-house contains a niche, which seems to have been the actual place for deposit of books, only large enough for a single box." Eyre, *Use of documents in pharaonic egypt*, 310.

[31] Christophe Thiers, "Fragments de théologies thébaines. La bibliothèque du temple de Tôd," *BIFAO* 104 (2004): 553–72.

[32] Kim Ryholt, "A Hieratic List of Book Titles (P. Carlsberg 325)," in *The Carlsberg Papyri 7: Hieratic Texts from the Collection*, CNI Publications 30 (Copenhagen: Museum Tusculanum Press, 2006), 151–55.

Nonetheless, there is no reason to assume that these books did not truly exist and the recording of their titles reflects the important role they had to play within the temple.

Two letters in the Carlsberg collection reference the sharing and transport of books. One, P. Carlsberg 22, is quite broken and mentions a book. The other is far more forthcoming. Both the sender and recipient are priests. A certain Miysis writes his friend, a prophet of Thoth concerning the lending of books:

Example 5.1. P. Carlsberg 21, 6-8[33]

> *tw=y ỉn n=k Ḥr sa Mỉ-rᶜ pỉy=y sn | pỉy dmᶜ swnw ỉrm tỉ mḏỉy.t | pỉ hn r ḏmᶜ 2 r-tỉ=k n=y | ḥỉ.t pỉ hrw*
> I have had Hor, son of Maare, my brother, bring to you the medical papyrus along with the vessel-book, for a total of 2 papyri, which you have given to me before today.

The implication of the letter is that at least some books circulated among literate scribes. It is difficult to extrapolate the distance books might have traveled or the volume of circulation, but it clearly indicates that books were put into use outside of the walls of the temple.

Scribes deliberately consulted, in a scholarly fashion, reference books and parallel texts, which were dutifully cited in the commentary in a manner akin to the footnotes of a modern researcher. The demotic commentary to the *Book of Nut* includes references to nine different texts.[34] Von Lieven characterized this activity as, "dies belegt exemplarisch das wissenschaftliche Vorgehen der Autoren, die offensichtlich nicht *ad hoc* irgendwelche Deutungen erfunden haben, sondern sich bemühten, gültige Aussagen in

[33] TM 46720; 2nd-1st century BCE; from Tebtunis. Karl-Th. Zauzich, "Zwei Briefe von Bücherfreunden," in *The Carlsberg Papyri 3: A Miscellany of Demotic Texts and Studies*, ed. P. J Frandsen and Kim Ryholt, CNI Publications 22 (Copenhagen: Museum Tusculanum Press, 2000), 53–57.
[34] For the details of the more than twenty citations, see Alexandra von Lieven, *Grundriss des Laufes der Sterne: das sogenannte Nutbuch*, Carlsberg Papyri 8 (Copenhagen: Museum Tusculanum Press, 2007), 284.

Einklang mit der Tradition zu machen."[35] Example 5.2 from the beginning of the *Book of Nut* shows the hieratic Middle Egyptian base text, its demotic commentary that quotes key words in hieratic, and an attribution to another text for an ancient term.

Example 5.2 P. Carlsberg 1, 2/20-21 (hieratic in bold)

> ***wn ḥry pt m kkwy smꜣw***
> *pꜣ* ***ḥrw*** *n tꜣ* ***pt*** *ḫpr n* ***kkwy*** *ỉw=f šbn ḏd* ***rtḥ-qꜣb.t*** *r-ḏd=f n* ***bl*** *nt-ỉw pꜣ qty n tꜣ* ***pt***
> The upper part of the sky is in primeval darkness.
> The "upper part" is the sky which occurs in darkness, which is joined together, called *rtḥ-qꜣb.t*, which he names in the *bl*-book, which is the circuit of the sky.

Scientific scholarly information derived from manuals could also be incorporated into texts with other functions. Three copies of the Embalming Ritual are attested as funerary manuscripts for first century CE Theban priests.[36] Each part of the ritual has a technical section and a liturgical section, which have been joined together. The technical portions clearly come from a medical embalming handbook and the details were likely quoted directly from the Vorlage.[37]

Thus the picture that emerges of scribal work in the House of Life suggests that scribes had significant room for innovation and that they used the resources at their disposal to further their goals.

5.2 Source Books

Given the rich catalog of books and the specific citations of books in other works, it is clear that scribes used the manuscripts available in temple libraries to produce new compositions and new annotated editions. Despite the fact no citations of the onomastica

[35] Ibid.
[36] Susanne Töpfer, *Das Balsamierungsritual: eine (Neu-)Edition der Textkomposition Balsamierungsritual (pBoulaq 3, pLouvre 5158, pDurham 1983.11 + pSt. Petersburg 18128)*, Studien zur spätägyptischen Religion 13 (Wiesbaden: Harrassowitz, 2015).
[37] Ibid., 256–58.

and signs lists are preserved and their contents may have constituted protected, secret knowledge, there is every reason to assume that they or copies and excerpts from them were actively used in the creation of other texts. However, the sheer size of the Tebtunis Onomasticon and to a lesser extent P. Carlsberg 7 and the Tanis Sign Papyrus presents a practical problem. Osing has objected that, "auch wenn Papyrusrollen in Ägypten über lange Zeit gebraucht werden konnten, hätte sich eine so lange Rolle wie diese doch kaum als Nachschlagewerk für den täglich Gebrauch geeignet."[38] Similarly the Tanis Sign Papyrus is also an extensive text and P. Carlsberg 7 may have been as well. The only text surveyed in the previous chapter that would have been of a manageable size is the Schøyen Tablet and the other wood tablet.

Despite the meager evidence attesting to excerpts, I contend that this was in fact a widespread practice. A handful of related texts illustrate that shorter lists, probably excerpts from elaborate library copies like the Tebtunis Onomasticon, are not completely unknown. The latter half of the Tebtunis Onomasticon is a priestly manual devoted to materia sacra and the calendar. This material is paralleled in other elaborate temple texts such as P. Carlsberg 182 + PSI I 77; pBerlin 14447 + PSI I 78; and pBerlin 7809/10 + pLouvre AF 11112.[39] Two short excerpts from these priestly manuals are attested. A short tree list with divine associations, P. Berlin 29027,[40] parallels a later portion of the Tebtunis Onomasticon (Fr. V 3,4-4,23) and a fragment from P. Carlsberg 182 (23, 5-9). And more recently, Hans-Werner Fischer Elfert published a list (P. Hal. Kurth Inv. 33 A-

[38] Jürgen Osing, *The Carlsberg Papyri 2: Hieratische Papyri aus Tebtunis 1*, CNI Publications 17 (Copenhagen: Museum Tusculanum Press, 1998), 33.
[39] Papyrus II-IV in Osing, *Hieratische Papyri aus Tebtunis 1*.
[40] Alexandra von Lieven, "Das Göttliche in der Natur erkennen. Tiere, Pflanzen und Phänomene der unbelebten Natur als Manifestationen des Göttlichen," *ZÄS* 131 (2004): 168–72.

C) of minerals, plants and birds written on the verso of a Book of the Dead papyrus.[41] This too has parallels to one of the materia sacra lists, pCarlsberg 182. Both of these excerpts are noteworthy not just because they represent more manageably sized texts, but also because they date significantly earlier than the Roman period temple copies. P. Berlin 29027 dates paleographically to the Saite Period[42] and P. Hal. Kurth dates to the Ptolemaic period, over 500 and 200 years, respectively, before the Tebtunis text.

Furthermore, Fischer-Elfert has suggested that such lists may have acted as raw source material upon which scribes could draw to include appropriate associations between sacred materials and gods in cultic texts.[43] The materials and their divine associations are recorded in the lists in the following fashion:

Example 5.3. P. Hal. Kurth Inv. 33 verso col. I, x+4-6

[i]r nbw ḥᶜw [pw n Rᶜw]	As for gold, it is the flesh [of Re]
[ir] ḥḏ qs[w pw n Rᶜw]	[As] for silver, it is the bones [of Re]
[i]r ḫsbḏ ḥr-tp pw n Rᶜw	As for lapis lazuli, it is the headdress (hair) of Re

But in actual cultic texts these associations are embedded into the larger text. So in the Book of Fayum,[44] we find these statements:

Example 5.4. P. Berlin 14488a+b+14438k, x+6

qs[w=f] m ḥḏ ỉwf=f m nbw šnw=f m ḫsb[t]
His bones are silver, his flesh is gold, his hair is lapis lazuli

[41] Hans-Werner Fischer-Elfert, "Weitere Details zur Göttlichkeit der Natur – Fragmente eines späthieratischen Lexikons," *ZÄS* 135 (2008): 115–30.
[42] von Lieven, "Das Göttliche in der Natur erkennen. Tiere, Pflanzen und Phänomene der unbelebten Natur als Manifestationen des Göttlichen," 169.
[43] Fischer-Elfert, "Weitere Details zur Göttlichkeit der Natur," 128.
[44] Horst Beinlich, "Drei weitere hieratische Fragmente des „Buches vom Fayum" und Überlegungen zur Meßbarkeit der Unterweh," *ZÄS* 126 (1999): 2.

The information and associations in the lists are adapted to a text.[45] Thus these shorter excerpts of the substantives and their divine associations also provide a parallel to the relationship between the Schøyen tablet and the Tebtunis Onomasticon, indicating that despite the slight evidence, a more widespread practice of creating and using such lists may have existed among elite temple scribes.

These onomastica were not merely passive collections of archaic vocabulary. The later addition of the demotic and Old Coptic glosses in the Tebtunis Onomasticon indicate that the text was still relevant years after its initial production. It also reveals that not just the Onomasticon but the vocabulary itself was still in active use. And in fact, if we look at the words on the Schøyen tablet, there are striking correspondences to roughly contemporaneous texts. The first group of texts in which a significant number of verbs from the tablet appear are a group of three ritual texts from Tebtunis. These comprise "the Daily Ritual of Soknebtynis" (PSI inv. I 70 and p Carlsberg 307 + PSI inv. I 79 + pBerlin 14473a + pTebt. Tait 25), the "Mythological Manual for Nomes 7-16 of Upper Egypt" (PSI inv. I 72), and "Manual for the Priests of Sakhmet" (PSI inv. 73 + pCarlsberg 463). Despite the obscurity of the verbs in the tablet, six are attested in these

[45] The transmission of this information may be more complex than this. The associations of various materials with divine body parts is an ancient practice and older texts likely were the source for the associations in the lists, which then in turn could be used to create new texts with these associations. For example, there are parallels to gold, silver, and lapis lazuli linked to the flesh, bones, and hair of a god in the New Kingdom Book of the Heavenly Cow: *qsw=f m ḥḏ ḥʿw=f m nbw šnw=f m ḫsbd* "his bones are silver, his flesh is gold, his hair is lapis lazuli" in the description of Re. See Erik Hornung, *Der ägyptische Mythos von der Himmelskuh: eine Ätiologie des Unvollkommenen*, Orbis biblicus et Orientalis 46 (Freiburg, Schweiz; Göttingen: Universitätsverlag ; Vandenhoeck & Ruprecht, 1982), 1.

texts.[46] Of those six, *ḥtḥt* "to leap"[47] (recto, x+7) and *qrỉ* "to act like a vagabond"[48] (recto, x+10) are not otherwise attested in any other text post New Kingdom, as far as I am aware. They also contain two attestations of the phrase *dỉt-šnᶜ* "cause to turn back"[49] (recto, x+10), for which I can find no other exact parallels from any period.

Thus, the verb lists in the Tebtunis Onomasticon and the Schøyen tablet provide clear evidence for a sophisticated and complex interest in lexicography that had practical implications for the production and reproduction of texts in the Greco-Roman period. The combination of both verb and substantive lists would have provided ample raw linguistic material for engaging with Middle Egyptian texts even at such a removed time. They would have aided scribes in the mundane process of copying texts, ensuring that scribes recognized orthographies and produced accurate copies. In terms of editing and repurposing archaic texts, the verb list in particular may have been a major resource for scribes to select meaningful, relevant, and grammatically coherent excerpts.

The early Roman Period Rhind Papyri provide an excellent example of how a complex new composition might be created and how onomastica might have helped. The Rhind papyri, P. Rhind I and II, are two funerary composition each containing parallel

[46] In the Daily Ritual, *sḫtḫt* "to drive back, repel" (PSI 70 1, 2—but restored here on the basis of pCarlsberg 307 A1,20; pl. 16b) and *dỉt-šnᶜ* "to cause to turn back" (pCarlsberg 307 A2,3; pl 16b) are attested. In the Mythological Manual, *šmȝy* "wandering ones (demons)" (x+2, 15; pl. 19b), which in the tablet is simply *šmȝy* "to wander", *ḥtḥt* "to leap" (x+6,14; 21b), and *qrỉ* "to act like a vagabond" (x+2,2;pl. 19b) are attested. In the Manual for the Priests of Sakhmet, *šmȝy* occurs again (A 1, 11; pl.22b), *ptḫ* "to throw down" (B x+13; pl. 22b)

[47] Wb 1, 581.3-6; with attestations from the medical texts and New Kingdom.

[48] Attested as a noun, not a verb, see Wb 5, 59.8-9; Wilson, Ptolemaic Lexikon, 1065. Potentially related to the verb *qr* "draw near," attested in the Middle Kingdom and New Kingdom, but not in the Ptolemaic temple inscriptions, see Wb 5, 59.1-7.

[49] Alone *šnᶜ* "to turn back" is of course well attested, see Wb 4, 504.5-505.12; but the causative form here is clearly meant to be seen as a single unit, particularly given the supralinear "x" connecting the two words, and in that form only appears in the Schoyen tablet and the Daily Ritual from Tebtunis to my knowledge.

hieratic Middle Egyptian and demotic versions.[50] P. Rhind II is an abbreviated copy of P. Rhind I and the hieratic version occupies the top of each page, with the demotic below. The two versions were almost certainly composed at the same time and there is no simple direction of translation between the two.[51] Foy Scalf speculates that "Based on the elements in the texts, it seems most likely that the scribe was pulling from many different sources, probably mostly hieratic, combining elements together and then transposing it into Demotic."[52] That the scribe who composed the Rhind papyri consulted hieratic sources is clear from several instances of *ky-ḏd* in the columns 5 and 6 of P. Rhind I. If the scribe had independently created the hieratic text wholesale, it is unlikely he would have added commentary marks that reflect a process of textual transmission purely for pseudo-historical verisimilitude, and if that had been his intention, he likely would have included that commentary in the demotic as well. As this is not the case, it seems more likely that he did in fact copy these sections from another text that had noted variant readings.

Example 5.5 P. Rhind I, col. 5, Hieratic 4, Demotic 3-4[53]

> Hieratic: *ḫnd=k ḫnm.t-ꜥnḫ snsn=k ỉm=f mn=k m ḫry=k ky-ḏd (m)ꜥḥꜥ.t=k m-ḫnw ḏbȝt=k*
> You will tread on Henemetankh, you will breathe there, you will remain in your tomb, variant: your cenotaph, in your sarcophagus.

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[50] A. Henry Rhind, *Facsimiles of two papyri found in a tomb at Thebes, with a translation by Samuel Birch and an account of their discovery, by A. Henry Rhind* (London: Longman, Roberts and Green, 1863); Georg Möller, *Die beiden totenpapyrus Rhind des Museums zu Edinburg*, Demotische studien von Wilhelm Spiegelberg 6 (Leipzig: J.C. Hinrichs, 1913). For a recent translation of the demotic, see Smith, *Traversing Eternity*, 302–48.

[51] "It is difficult to say which is the original. It may be that some sections of the manuscript were first composed in demotic and then translated into Classical Egyptian. But in other sections, the process may have been reversed," Smith, *Traversing Eternity*, 304. Möller attempts to determine the original composition sections, see Möller, *Die beiden totenpapyrus Rhind des Museums zu Edinburg*, 8–11.

[52] Scalf, "Passports to Eternity: Formulaic Demotic Funerary Texts and the Final Phase of Egyptian Funerary Literature in Roman Egypt," 266.

[53] Quoted in Emily Cole, "Interpretation and Authority: The Social Function of Translation in Ancient Egypt" (Dissertation, UCLA, 2015), 194.

> Demotic: *mšᶜ=k r ḏmȝ ỉw=k snsn ḫn=f mn=k ḫn tȝy=k ḥ.t ḫn tȝy=k tyb.t*
> You will go to Djeme, as you breathe there. You will remain in your tomb in your sarcophagus.

Thus the scribe used hieratic sources in the process of composition. This use of hieratic sources may also explain the deliberately varied vocabulary of the hieratic in comparison to the demotic. Emily Cole has demonstrated in her study on intra-lingual translation that the scribe "creatively expanded the lexicon of the Hieratic text with words that would evoke the texts on Egyptian temple walls, but provided a comprehensible companion text in contemporary Demotic idiom" in order to maximize the efficacy and power of the document.[54] In particular, Cole has noted that while the demotic versions of the text used the verb *sḫ* "to write," the hieratic versions never do, despite the fact that *sḫ* "to write" is the most common way of expressing "to write" in Old Egyptian, Middle Egyptian, demotic, and even Coptic. Instead, the hieratic employs a host of synonyms: *ḫt* "to inscribe" (1h8; 5h2), *ỉr* "to make" (1h11), *wḏ* "to decree" (2h2), and *ḫsb* (4h10) "to reckon."[55] Lists like the Tebtunis Onomasticon and the Schøyen Tablet, organized by semantic field, would provide source material for precisely this type of lexical variation.

Lexical variation of this type is also attested in the temple inscriptions. Pantalacci has shown that the vocabulary of the texts in the temple of Hathor at Dendera displays a propensity towards extensive use of synonyms.[56] In her analysis, she identifies nine verbs of offering, six terms for the leg, seven words for the divine eye, and ten designations for the cultic vessels. In one section alone, at least twenty-three verbs of movement are used to describe the activities of divinities. The sheer number of synonyms demonstrates that

[54] Ibid., 201.
[55] See Table 6.1 in Ibid., 200.
[56] Laure Pantalacci, "Remarques sur les méthodes de travail des décorateurs tentyrites," *BIFAO* 86 (1986): 267–75.

this lexical variation was deliberate. The lexical lists would provide the necessary references for such an endeavor. Yet even using lexical lists as source material for hieroglyphic inscriptions may have posed a problem for the scribes. Careful analysis of each sign in a particular hieratic spelling was needed to select the proper hieroglyph to be inscribed. This was not always an easy feat and examples abound where the hieratic version lead to confusion in the hieroglyphic text.[57] One function of the Tanis Sign Papyrus was likely to aid in linking the correct hieroglyph with its hieratic equivalent. Not only does the Tanis Sign Papyrus list the hieroglyph alongside the hieratic sign, but it also ensures there was no confusion by giving a description of what the hieroglyph represented. This would have been an essential aid to a scribe attempting to transfer an unfamiliar term from a hieratic manuscript to a stone hieroglyphic inscription. Thus, the manuscripts preserved in the holdings of temple libraries functioned not just as repositories of sacred knowledge, but likely also as source book for lexical and orthographic work.

5.3 Word Play

Beyond providing a basic source for diverse vocabulary, the onomastica and sign-lists also aided in the production of word-play and unetymological writings. The attention to pronunciation and lexical nuance inherent in the onomastica and sign lists are also the driving forces behind word play in temple inscriptions. The vocabulary of the onomastica overlaps significantly with that of the temple inscriptions. In fact, the majority of the words in the tablet are attested in some form at Edfu and Dendara. While that is perhaps not so terribly surprising, more noteworthy is that many of the contexts in which they

[57] This is far from just a Greco-Roman phenomenon, but true for hieroglyphic inscriptions throughout Egyptian history.

occur display extensive word play and alliteration. For example, from the Schøyen tablet, the word *ḫtḫt* "to drive away" (recto, x+3) occurs almost exclusively with alliterative objects at Edfu: *ḫtḫt ḫfṯyw* "to drive away enemies," *ḫtḫt ḫꜣswt* "to drive away foreign lands," *ḫtḫt ḫryw* "to drive away foes."[58] It also occurs in *ḫtḫt ḫꜣkw-kbw* "to drive away rebels" *ḫtḫt ḫpd* "to drive away vexation," and more. If we take *sbsb* "to drive away," (recto, x+5) it occurs several times in Edfu in the alliterative phrase *sbsb sbyw* "to drive away enemies."[59] Further, *sḫm* (recto, x+9), which seems to be a writing of *sḫm* "to be hasty, impetuous,"[60] occurs at Edfu:

Example 5.6 Edfu I 543, 12

> *sḫm r sḫmt=k sḫm n sḫmw sḫm=k sḫm m sbyw*
> "Hasten to your shrine, oh powerful one of images; may you prevail, oh prevailer over rebels."

Another significant chain of alliteration occurs with *ḥꜣḥꜣ* "to seek, go astray" (recto, x+6):[61]

Example 5.7 Edfu II 256, 6

> *ḥḥw ḥꜣḥꜣ n=k ḥbbt ḥr ḥnbt*

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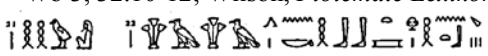
[58] Respectively, Edfu I 102,5; VI 91,9; V 144,1; IV 357, 3; V 296,15; IV 357, 3. For variation on *ḫtḫt ḫfṯyw* see IV 374, 3-4; V 71,11 VI 141, 14; III 33,15; I 452, 10; IV 371, 10; V 41,14; VI 337, 8. Another object includes *ḫbt=sn* "their abattoir" V 234,2 and this also occurs in sequence describing *ḫfṯyw* as *ḫdb, ḫr.ty* and *ḫtḫt* "killed, felled, and repelled" IV 306, 15.

[59] Edfu VI 141, 14; 263, 3; 297, 16; and VII 62, 12. Others attestations are VII 327, 16; VIII 36,6, VII 202,2; VII 43, 10. In 8 out of 11 attestations in Edfu, the object is *sbꜣw*; as for the other three, two are s-initial words as object or subject (*smsty* "Apophis" [VI 14,5] and *sttyw sbsb.tꜣ* [IV 340, 16-17]), only the last is clearly not alliterative III 117, 4. In Dendara, X 110, 10 has *sbsb sbꜣw*; see also Dendara III 28h. The verb does occur without an object in Saite period (second half of the 4th century BCE) Tomb of Petosiris text 115 line 2. Occurs in BD 125 (line 60 in Ptolemaic pTurin Museo Egizio 1791) as *zbzb mnw* "the expeller of Min is the name of my right leg." I can find no MK, NK, or TIP attestations. In the OK, there is a writing of *zjzj* "to catch" with two walking bolt "s"s in PT 724, N (Pepi II, antechamber, east wall) 1055+37.

[60] Alternation between *ḫ* and *ḥ* is not uncommon in the Greco-Roman Period. See Dieter Kurth, *Einführung ins Ptolemäische. Eine Grammatik mit Zeichenliste und Übungsstücken* (Hützel: Backe-Verlag, 2008), 528. For *sḫm*, see Wb 4, 269.13-16; Wilson, *Ptolemaic Lexikon*, 918.

[61] Wb 3, 32.10-12; Wilson, *Ptolemaic Lexikon*, 616-17. For alliteration:



"Oh Hehu,[62] go (as) the flood water over meadows."

Two other words—*nn* "make tired" (recto, x+4)[63] and *pd* "to stretch out" (recto, x+9)[64]--appear in similarly complex alliterative chains at Edfu.[65]

This connection between the vocabulary of the tablet and alliterative use is even more striking given the entries in the first two lines of the tablet. Presuming that there is not another *ỉr* marker after the break, under the *ỉr šmʒy* heading there are five words with combinations of *ḫ* and *t* sounds: *ḫtʒ, tḫtḫ, wtḫ*, *ptḫḫ*, and *ḫtḫt* (recto, x+2-3). The cluster of those words hardly seems accidental, particularly since they are not in fact etymologically related. It seems possible that not only were these verb lists a commentary on difficult words, but that they formed a source for scribes to choose obscure words and perhaps even choose artfully appropriate words.

Alliteration was not the only type of word play in use in Ptolemaic Temples. A recent study on the Per-wer sanctuary at the Hathor temple in Dendera, has shown that there were several strategies of complex word play involving visual and aural puns.[66] In particular puns that play with the different meanings and usages of the same root are of interest.[67] For example, at Dendera in a scene on the east wall of the Per-wer, the king offers incense to several goddess who respond: *šsp=n snṯr r snṯr snn=n* "We receive the incense in order to cense our statues" (D III, 73, 12-13). The first instance of *snṯr* is the

[62] The personified flood waters, see Wilson, *Ptolemaic Lexikon,* 674.
[63] Wb 2, 275.2-8. See also, Wb 2, 276.1-2.
[64] Wb 1, 567.8-568.13
[65] Edfu VII 205, 16; Edfu II 246, 4-5; Edfu I 325, 1.
[66] Barbara A. Richter, *The Theology of Hathor of Dendera: Aural and Visual Scribal Techniques in the Per-Wer Sanctuary*, Wilbour Studies 4 (Atlanta: Lockwood Press, 2016).
[67] Richter divides this use into two types: antanaclasis (same root and form, different meaning) and polyptoton (same root, different form and meaning). However due to the ambiguity in Egyptian writing, I do not think that all of the examples that she calls the "same form" necessarily are, so I have preferred not to draw a distinction here.

noun and the second the verb. The arrangement of the onomastica into verbs and nouns may have assisted scribes in choosing words that could create this type of paronomasia. Thus one functional aspect to the onomastica and sign lists are that they provide direct evidence that scribes had both the ability and interest to create elaborate wordplays and add lexical depth and richness to otherwise rote texts.

The complex relationship between graphic form, phonetic realization, and mythological allusions that occurs in the P. Carlsberg 7 also appears in other contexts. The use of unetymological writings in demotic to add an additional layer of meaning to a religious text[68] implicitly employs the same strategies expressed explicitly in the values given for the ibis hieroglyph *hb* in P. Carlsberg 7. Most texts with this specialized use of demotic come from Soknopaiou Nesos and are religious in nature.[69] The best examples are P. Berlin 6750, P. Berlin 8765, and P. BM EA 76638.[70] An example of this type of writing is the orthography of the phrase *ḥr pȝ wt wsir* in P. Berlin 6750. The expression is written as if it says, "Horus, the papyrus of Osiris," but the context clearly indicates that it means, "Horus, the embalmer (*pȝ wt*) of Osiris."[71] The alternation of written form with the pronounced form is similar to the puns in P. Carlsberg 7. It also echoes the

[68] There is a debate about whether or not these "unetymological" writings are truly meant to indicate an additional meaning or if they were simply an attempt to express the current pronunciation of the word. For a summary of this debate, see Mark Depauw, "Language Use, Literacy, and Bilingualism," in *The Oxford Handbook of Roman Egypt*, ed. Christina Riggs (Oxford: Oxford University Press, 2012), 495. An example of the latter, strict pronunciation use, is the demotic gloss *ḥr* "Horus" for *ḥr* "prepared" in the Tebtunis Onomasticon. See above, section 4.3. However, the uses of unetymological writings in the body of a liturgical text are different from a gloss in an onomasticon and I favor seeing unetymological writings as a deliberate strategy for layering on additional meaning in religious contexts.

[69] Ghislaine Widmer, "Words and Writing in Demotic Ritual Texts from Soknopaiu Nesos," in *Ägyptische Rituale der griechisch-römischen Zeit*, ed. Joachim Friedrich Quack, Orientalische Religionen in der Antike 6 (Tübingen: Mohr Siebeck, 2014), 133–44.

[70] The last of these is still unpublished. For the first two, see Ghislaine Widmer, *Résurrection d'Osiris - Naissance d'Horus: les papyrus Berlin P. 6750 et Berlin P. 8765, témoignages de la persistance de la tradition sacerdotale dans le Fayoum à l'époque romaine*, Ägyptische und orientalische Papyri und Handschriften des Ägyptischen Museums und Papyrussammlung Berlin 3 (Berlin: De Gruyter, 2015).

[71] P. Berlin 6750, x+6, 9; see Widmer, "Une invocation à la déesse," 678.

importance of determinatives, which are emphasized by the repetitions in the Tebtunis Onomasticon, as *pꜣ wt* "the papyrus" and *pꜣ wt* "the embalmer" can normally be distinguished by their expected determinatives.[72]

5.4 Mixing Scripts and Language Stages

The concomitant use of hieroglyphs, hieratic and demotic, as well as both Middle Egyptian and demotic language stages, allowed scribes to become creative with script choices. For Egyptian scribes, copying was not just a reproductive activity but also a creative activity.[73] The adaptability and care that might go into a document can be seen in the unusual P. Bodl. Ms. Egy. a. 3 (P). It dates by paleography to the second half of the first century CE and consists of six separate ritual texts. The first is a demotic version of BD 171, the next a hieratic ritual called the Rite of Bringing Sokar out of the Shrine, the third through fifth a demotic series of offering liturgies, and the final text is a demotic version of PT 32 and 25.[74] All demotic portions of the manuscript are grammatically Middle Egyptian with the exception of the last which is grammatically Old Egyptian. The hieratic portion is Middle Egyptian as well. The transcription of Earlier Egyptian into demotic is no simple matter because demotic orthography was traditional and deviations from the expected could lead to confusion. Nonetheless, the scribe clearly found value in maintaining the archaic grammar even while using the more modern script and exploited the tension between possible phonetic realizations to achieve this goal.

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[72] See CDD W 35.
[73] This is hardly new to the Greco-Roman Period. The process of skillfully piecing together sections of disparate texts into a new whole can be seen throughout Egyptian textual history. For a recent discussion, see Alexandra von Lieven, "Closed canon vs. creative chaos: an in-depth look at (real and supposed) mortuary texts from ancient Egypt," in *Problems of canonicity and identity formation in ancient Egypt and Mesopotamia*, ed. Kim Ryholt and Gojko Barjamovic, CNI Publications 43 (Copenhagen: Museum Tusculanum Press, 2016), 51–77.
[74] Smith, "Bodl. MS. Egypt. a. 3(P)," 145–46.

Despite the fact that this manuscript clearly draws from a variety of sources and adapts the texts in different ways, the same scribe wrote all six sections and they "collectively form a logical sequence, involving the successive stages of providing protection, reawakening, and sustenance for their beneficiary or beneficiaries, and exhibit a considerable degree of ritual coherence."[75] The manuscript's scribe therefore carefully and skillfully interpreted, edited, and copied from various texts. The ability to work with the basic units of signs and words no doubt aided the scribe in this task, particularly since in order to write the Earlier Egyptian grammar in demotic, it was necessary to use unetymological writing. Thus the choice of the scribe, and it was demonstrably a choice as a hieratic text also occurs on this papyrus, to use demotic transliteration where many words were written unetymologically suggests that "the manner in which a word is written is just as important as the manner in which it is pronounced."[76]

At the end of the Egyptian manuscript tradition, the magical papyri show another way in which the dual importance of written form and pronunciation might interact. The ever increasing disparity between the pronunciation realized in recitation on the one hand and either the fixed historical orthographies or the playfully creative new orthographies on the other hand generated a need for critical analysis. In the magical papyri, Demotic, Old-Coptic and Greek glosses were deployed in order to bridge this gap.

[75] Ibid., 149.
[76] Ibid., 154.

P. London Leiden 23/24-26

sax amoun sax abrasax
1 *Hail, saks, Amun, saks, abrasaks*
2 for you are *the moon,* the great one of the stars,
he who gave birth to them
3 he who gave birth to them.
4 Listen to these things which I said.
5 Walk in accordance with what is from my mouth.
6 May you reveal yourself to me;
than thana thanatha; another version: **thêi**
7 *tahanu, taheanuna, tahnuatha.*
8 *This is my correct* name.[77]

In the above translation, the demotic is in normal script, the hieratic in italics, and the Old Coptic in bold. The translation is broken up in to sections and numbered to clarify to what part of the base text the glosses correspond. Typically in the demotic magical texts, demotic is used for the majority of the base text, with certain signs and words of particular ritual significance written in hieratic. Occasionally the base text might be a patchwork of demotic and hieratic phrases.[78] However, the example above displays an unusual mixing of scripts, as it uses hieratic to spell out the *voces magicae* (e.g. tahanu, taheanuna, tahnuatha in line 7), rather than the expected demotic and even uses a hieratic gloss. Dieleman suggests that "this complex mixing resulted in all likelihood from the frequent consultation of multiple manuscripts during the phase of compilation and editing."[79] Nonetheless, the hieratic in this particular spell is used both as an attempt to spell out the sounds of the *voces magicae* and in the expected symbolic use (i.e. the spelling of "the moon" in line 2). The pronunciation was not guaranteed by the hieratic

[77] Translation from Dieleman, with minor changes. Dieleman, *Priests, Tongues, and Rites: the London-Leiden magical manuscripts and translation in Egyptian ritual (100-300 CE), Religions in the Graeco-Roman world*, 57.
[78] E.g. P. London-Leiden 6/18-19; P. London-Leiden 6/22-26; see Ibid., 53–54.
[79] Ibid., 57.

and had to be clarified with an Old Coptic gloss. But this use of hieratic indicates that some earlier version of the spell did consider this an effective use of hieratic. The possibility of using hieratic both as a symbolically weighted script and as a means of expressing pronunciation reflects the use of hieratic in the Tanis Sign Papyrus and P. Carlsberg 7.

5.5 Conclusion

Elite scribes in the Greco-Roman period copied, edited, and composed texts as part of the House of Life. This work included the temple inscriptions, funerary texts, ritual manuscripts, and scientific compositions. Despite the importance of the classical language and scripts, the perpetuation of older traditions was not predicated on strict fidelity to an ancient manuscript. Scribes felt free to emend, annotate, translate, transliterate, and mix and match texts to achieve an effective result. The onomastica and sign-lists provided building blocks for these endeavors because they interacted with the two key elements that drove scribal innovation: the semantic potential of a written form and the possible phonetic realizations.

EPILOGUE: THE METAPHOR OF WRITING

The unusual and sacred nature of the Egyptian language, as well as its ability to contain secret knowledge, is expressed in the Hermetica, when Asclepius says:

> "[my books] are unclear and hide the meaning of the words, and will become completely obscure when later on the Greeks will want to translate our language into their own, which will bring about a complete distortion and obfuscation of the text. Expressed in the original language, the discourse conveys its meaning clearly, for the very quality of the sounds and the [intonation] of the Egyptian words contains in itself the force of the things said…Preserve this discourse untranslated, in order that such mysteries may be kept from the Greeks, and that their insolent, insipid and meretricious manner of speech may not reduce to impotence the dignity and strength [of our language], and the cogent force of the words. For all the Greeks have…is empty speech, good for showing off; and the philosophy of the Greeks is just noisy talk. For our part, we use not words, but sounds full of energy."[1]

Somewhat ironically, it is a Greek texts that places the Egyptian language on a pedestal, powerful and untranslatable. While this statement has been filtered through a Greek cultural lens and perpetuates a Greek myth about the hidden knowledge of the hieroglyphs, it also contains a kernel of truth. Written Egyptian language does have aspects that cannot be translated into Greek, such as visual word play and the use of determinatives. And above all, the Egyptian language is effective and powerful in ways specific to Egyptian culture. A properly pronounced spell or recitation will result in a desired outcome. A written text contains the ritual force of its content, so that it can be perpetually enacted.[2]

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[1] Garth Fowden, *The Egyptian Hermes: a historical approach to the late pagan mind* (Cambridge: Cambridge University Press, 1986), 37.

[2] "The Egyptian's belief in the capacity of writing to abolish the temporal limitations of the spoken word and extend its effectiveness to infinity meant that , for them, copies of ritual texts composed for human beneficiaries, like their counterparts originally composed for use in the cult of Osiris and subsequently adapted for human beneficiaries, constituted not just records of the ceremonies in which they were employed, but performances of them as well." Mark Smith, *Traversing Eternity: Texts for the Afterlife from Ptolemaic and Roman Egypt* (Oxford: Oxford University Press, 2009), 210.

In the previous chapters, I have laid out how the Egyptians organized elements of their writing system and language in documents that came from specific intellectual milieus and that had specific functions. The demotic exercises largely come from the school environment. Their goal is to instruct students in learning the writing system and to familiarize them with common vocabulary and phrases. They also reveal an understanding of the basic units of language, both grammatical units and phonetic units. The grammatical paradigms display no technical terms nor explanatory glosses, but their organization alone speaks to their purpose. On a practical level, the layout of the grammatical exercises emphasizes the distinctive written forms. At the same time, the development of an alphabetical order illustrates an interest in giving phonetic units primacy in certain texts. The use of an acrophonic, but not an acrographic principle suggests that the Egyptian were aware of the gap between orthography and pronunciation.

The onomastica and sign lists engage with nuances of orthography and pronunciation more explicitly. The Tebtunis Onomasticon has demotic and Old Coptic glosses; P. Carlsberg 7 uses puns to define the use and meaning of hieroglyphs. The focus on these two aspects reflects the focus of the temple inscriptions and religious texts for which the onomastica and sign lists were reference books. Thus across all levels of scribal culture, there was a fascination and preoccupation with written forms and pronunciation.

The dialogue in the *Book of Thoth* also seems to engage with the issue of visual form and spoken form, but through a metaphorical discussion between the master and disciple. Jasnow has argued that the much of the animal imagery in the *Book of Thoth*

refers to writing and the hieroglyphic signs themselves.[3] Each animal can be seen as a reference to a hieroglyph[4] and the act of writing as a hunt for those animals. In many ways, these discussions of language through the metaphor of animals are the most explicit statement on the part of the Egyptians about how they conceive of language. We can see the relationship between animals and writing in a statement by the master as he is describing the ba-souls (i.e. the sacred books):

> "The document is a nest. The books are its nestling."[5]

The statement that a text is a nest implies that what is in the text, just like what is in a nest, is a bird. As texts are made up of signs, the signs must be birds. But the second statement also complicates that by stating that the books themselves are the birds as well. Throughout the discussions, two aspects of the animals are emphasized: the first is their form and the second their speech. The Master demands of his disciple:

> "What is their form? Reveal their shapes! For what is the opening of the mouth? Come to hear them!"[6] (547)

In the previous passage the disciple has just spoken of the "sacred animals" and the master then asks the disciple to demonstrate his understanding of them. He specifically ask about their "forms" which can be understood as a reference to the specific animal

[3] Richard Jasnow, "'Caught in the web of words' - remarks on the imagery of writing and hieroglyphs in the Book of Thoth," *JARCE* 47 (2011): 297–317; Richard Jasnow, "Birds and Bird Imagery in the Book of Thoth," in *Between Heaven and Earth: Birds in Ancient Egypt*, OIMP 35 (Chicago: The Oriental Institute of the University of Chicago, 2012), 71–76.
[4] This is not a strict association. An animal does not necessarily refer directly to a specific sign or even necessarily to one sign alone. The line between an individual sign, the unit of a word, and even a text (a ba of Re) should be seen as fluid.
[5] Richard Jasnow and Karl-Theodor Zauzich, *Conversations in the House of Life: a new translation of the Ancient Egyptian Book of Thoth* (Wiesbaden: Harrassowitz, 2014), 77.
[6] Ibid., 153.

form, i.e. the specific hieroglyph. The master also seems to refer to the pronunciation of the hieroglyphs, when he exhorts the disciple to "come to hear" the animal shapes.

Similarly the master describes the creation of the hieroglyphic signs themselves and he again mentions both form and sound:

> "The signs revealed their forms. He called to them. They answered to him. He went about truly in the path of the dog. He did not restrain their barkings. He understood the barking of these and these cries of the Vizier (=Thoth)."[7]

This description once again links form and sound ("he *called* to them" and "they *answered* to him). Given that the passage is actually describing the actions of a creator deity, it further indicates that the Egyptians placed equal emphasis on the visual identification of a sign and on the correct oral realization of that sign.

Ultimately the tension between written and oral form underlies the textual tradition because a text could and did serve both as an object imbued with the ritual force of its written words for the eternity of its existence and also a remnant of an equally efficacious, but ephemeral oral performance. Thus scribes were dedicated to transmitting the complex relationship between visual and auditory meaning across script and language stage. This goal reveals itself in the demotic school exercises and in the priestly manuals, as well as in the contemporaneously produced demotic, hieratic, and hieroglyphic texts.

[7] Ibid., 131.

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